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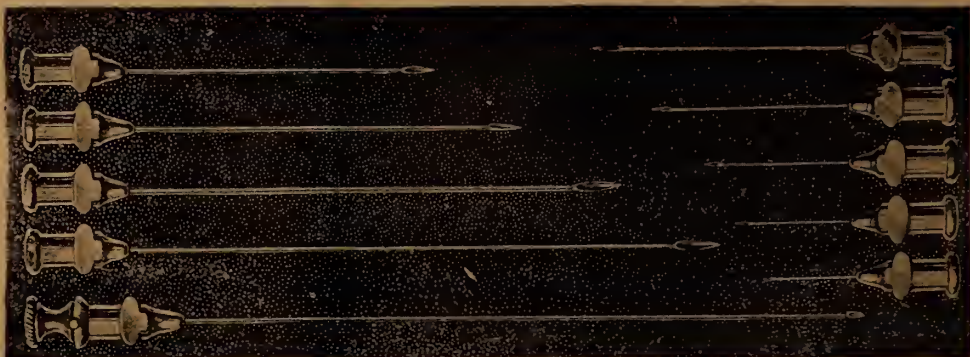
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THE USE OF THE SCHICK TEST AND OF THE TOXIN-ANTITOXIN INJECTIONS IN THE PREVENTION OF DIPHTHERIA.*

By WILLIAM H. PARK,
NEW YORK CITY.

THE SCHICK REACTION

THIS may be defined as the local effect of the intracutaneous injection of 1/40 of a minimum fatal dose of diphtheria toxin in 0.2 cc. of normal saline solution. It is a dependable test if the *correct* amount of toxin is given strictly intracutaneously. If the injection is faulty either in the amount given or in the method, it gives misleading results and is not a true Schick test. If too much toxin is administered, reactions occur in some subjects who we believe are really immune; if too little is given, we obtain too few reactions and have failed to detect all of the susceptible individuals. That is, we miss those who although they possess traces of antitoxin, have too little for protection. If the toxin is not injected wholly intracutaneously, it is not sufficiently retained in the skin and so does not produce its full local effect. The first essential, therefore, is that the laboratory test the toxin and send it out in just the right strength. Until very recently the laboratories have frequently erred by supplying toxin which gave either an excess or too small a proportion of positive Schick reactions. The latter result has been due not to the fact that too little toxin was put in the containers, but because we did not realize that the glass of the containers whether bottles or tubes, is often unsuitable and has a deleterious effect on the toxin. Within even a few weeks, unsuitable glass will cause a great deterioration in the toxin. Sometime ago because of certain results reported to us, Dr. Zingher sent out and asked the manufacturers of biological products to send us a number of their outfits. In over thirty per cent. of them we found that the toxin was deficient in amount. Last summer the manufacturer, who had always supplied us with suitable glass, felt aggrieved at the way the contract had been awarded and sent us an inferior article. As we had tested the toxin

put up in his glass tubes for many years and had not found any deterioration, we omitted to test this lot. Soon we received a report that our toxin used in comparison with that of another biological plant, gave less reaction. Samples of both toxins were sent to us and we found that ours had forty per cent. and the other had one hundred and eighty per cent. of the required amount. Just recently, we were sent a portion of a quantity of toxin which had been prepared by a private manufacturer. The toxin had been held for six months and was sent to us with the comment that one hundred children had been Schick tested without the occurrence of a positive reaction. We sent some of our toxin in return and on the retest thirty of these same children reacted positively. If any health officer tests fifty or more children with toxin and no characteristic reaction develops, he can be sure that the toxin is unsuitable because of loss of toxicity and should be discarded. We can sum up by saying that the presence of a negative or wholly pseudo reaction to a Schick test on the third or the fourth day is a reliable indication of present and future immunity provided that the injection has been properly given, but that the results of many tests, because of faulty toxin or faulty technique, are misleading.

THE USE OF THE SCHICK TEST FLUID DETOXICATED BY HEAT TO DIFFERENTIATE THE PROTEIN FROM THE TOXIN REACTION.

In discussing the Schick test it is often necessary to consider separately its value for scientific observations and its practical value in deciding the question of immunity and when to give the toxin-antitoxin injections.

The value of the control test is twofold: in the first place, it helps to point out those hypersensitive cases which are apt to give the more severe reactions from the autolysed bacillus substance in the toxin-antitoxin injections; in the second place, it is helpful in deciding whether a doubtful Schick reaction is due to the toxin or due to the foreign protein in the toxic broth. In probably about 5 per cent. of the Schick tests, there is considerable doubt as to whether a pseudo (protein) or a combined reaction (toxin and protein) is present. If a control test has been made and the resulting reaction

* Read at the Annual Meeting of the Medical Society of the State of New York, at Albany, April 19, 1922.

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is exactly the same as that of the Schick test, it is pretty safe to assume that the reaction with the Schick test is a pseudo reaction due to the proteins mixed with the toxin. On the other hand, if there is no reaction with the heated toxin, it is safe to assume that the reaction in the Schick test was due to the toxin.

In both these cases, however, we know that it is possible for a moderate Schick reaction to occur at the same time that a pseudo reaction occurs; also that the center of the pseudo reaction may often be so similar to a Schick reaction that if the pseudo be at all strong, it may mask the genuine reaction. Consequently, we are never really sure with a strong pseudo reaction which persists longer than five days, whether the Schick reaction is entirely a pseudo or is a combined reaction.

We know also that heating the toxic broth alters some of the proteins as well as the toxin and that in some persons there is a pseudo reaction of moderate extent with the unheated toxin which does not occur with the heated toxin. The absence of a reaction on the control arm is not, therefore, absolute proof that the reaction on the Schick arm is absolutely a toxin reaction.

My own belief is that a control test in children over six years of age is always an advantage, because it enables us to eliminate pretty surely about five per cent. of the reactions from being considered as probably true reactions. It helps also in estimating the nature of the other slightly doubtful reactions. On the other hand, if we are simply giving the injections with the idea of immunizing children and not trying to obtain statistical evidence and if we are willing to inject with the toxin-antitoxin the doubtful five per cent. which the controls would eliminate, there is no harm in omitting the control injections. When we do this, however, we should always inject all doubtful cases. As far as the severity of the reactions is concerned, there are few severe enough in young children to make us withhold the toxin-antitoxin injections. In the near future this will be even more true, for the severity of the reaction from the injections will be much less, because at least nine-tenths of the neutralized toxin and also of the accompanying bacterial products will be eliminated from the mixture. The fact that the reactions are rather more severe in older children and adults and that the percentage of older persons who require the injections is less than with young children, makes it less desirable to inject immune persons unnecessarily. A control test is, therefore, more valuable in older children and adults. The additional fact that the percentage of immune persons increases with age adds to the value of a control test in these groups.

THE IMPORTANCE OF A NEGATIVE REACTION

What proof have we that a negative Schick test gives us assurance that sufficient antitoxin is present to supply protection against diphtheria? We realize that Schick tried to select for the intracutaneous test a definite amount of toxin which, if it gave a reaction, showed the case was not immune because of antitoxin; if no reaction developed, that the case was immune. To find an amount of toxin which would make such an absolute separation of cases would be too much to expect. Antitoxin which would just prevent a diphtheria infection under ordinary conditions of health would hardly do so if the case were complicated by, for instance, measles or tonsillitis. If the minimum amount of antitoxin sufficient to prevent a positive Schick reaction did not always prevent a slight local infection, would there be enough antitoxin to prevent systemic poisoning? I have studied this matter carefully and I am convinced that there are cases occasionally with slight tonsillar exudate and positive cultures that give the negative Schick test. For instance, last week at an institution where there are fifteen hundred children and where we have been giving the toxin-antitoxin injections at intervals for seven years, it was reported that they had two children with suspected diphtheria who had recently given negative Schick tests. One of the children had developed a tonsillar deposit and a temperature of 103° F. At the end of the second day a culture was made. On the third day because of a positive report on the culture, antitoxin was given, although the child had already improved greatly. The other child showed a slight sore throat but no exudate. The culture was also positive. Did these two children have diphtheria? In one case, recovery began before antitoxin was administered. In the other, no antitoxin was given and no exudate developed.

You may remember a report of mine in regard to an institution in which all the children had given some months before the negative Schick test; yet seven children developed tonsillitis with patches within a week's time and all were shown to have diphtheria bacilli. All the children but the last one received antitoxin and all including the last one recovered promptly. If I had not withheld the antitoxin from the last case undoubtedly it would have been thought that antitoxin had cured the others.

In a hundred other little children living in different wards in this institution, no suspicious cases developed; yet when we made cultures we found the extraordinary condition that over 50 per cent of these children carried virulent diphtheria bacilli in their throats. My interpretation of these cases is that it is possible

under unusual conditions, such as an infectious tonsillitis together with a diphtheria carrier condition, for a slight diphtheria to develop even in persons having just enough antitoxin to give the negative Schick test; but I believe these cases will never be severe and will quickly recover without an injection of antitoxin.

THE CONTINUED MENACE OF DIPHTHERIA

Before taking up active immunization let us consider the need of additional measures to combat diphtheria. We have noticed in New York, Pennsylvania, Massachusetts, Connecticut and other places, that there has been only a moderate decrease in the number of cases through the use of isolation guided by cultures and the use of immunizing doses of antitoxin. The improvement in mortality from the use of antitoxin has been very much greater for the deaths have been reduced to one-fifth their previous number.

It is rather interesting that during the last nine years the diphtheria mortality in New York State outside of the city, has risen from about eleven per hundred thousand to eighteen per hundred thousand. In New York City it rose from nineteen per hundred thousand in 1916 to twenty-two per hundred thousand in 1919. Up to 1920 there were in New York City about fifteen thousand cases and twelve hundred deaths a year. These facts make us appreciate that in spite of the great lessening in deaths we have not yet conquered diphtheria.

ACTIVE IMMUNIZATION AGAINST DIPHTHERIA

The only additional measure that seemed of possible practical value was to develop active immunity with diphtheria toxin modified by antitoxin. With the Schick test it became very easy to determine whether toxin-antitoxin injections in children would give antitoxic immunity and, if such immunity developed, to test its duration. In 1895, Babes showed that the injections developed immunity in guinea pigs and that it lasted at least for some months. Some years later, Theobald Smith showed that the guinea pigs remained immune for about two years. Before that I had shown that toxin-antitoxin injections were harmless. Could we expect immunity to last longer in a human being than in a guinea pig? We could at least hope that it would, because there is some tendency in a human being to develop and maintain a natural immunity. Whether this natural production of antitoxin is due to the development of the carrier state or is due to an inherent tendency we do not know; but the fact gave us the hope that, if antitoxic immunity were once developed, it might be a permanent acquisition.

RESULTS OF TOXIN-ANTITOXIN INJECTIONS

In 1913 immediately after the publication of Schick's articles, we began the experimental and, later, the practical use of toxin-antitoxin injections for the immunizing of children against diphtheria. We established the facts that the procedure was harmless and that after three injections about eighty per cent of those individuals possessing no antitoxin or insufficient antitoxin to protect from diphtheria, developed immunity. Those showing positive Schick reactions and receiving two injections, developed negative Schick reactions in about seventy per cent; those receiving one injection, in about fifty per cent. We soon realized that the next important problem was the duration of the antitoxic immunity in those that had developed antitoxin. A satisfactory answer to this question required that immunization be carried out in institutions where the children would be under observation for a number of years. A few suitable institutions were immediately sought for and obtained by Dr. A. Zingher and, later, others were added by Dr. M. C. Schroder. We have thus been able to keep under supervision for from three to six years some ten thousand children. From year to year Drs. Zingher and Schroder are reapplying the Schick test to these original children. With a few of them we are now beginning the seventh year of observation. We have had no serious immediate or late after effects. In these institutions diphtheria has not developed in any child who has received three injections. Eighty per cent. of those who received three inoculations have developed sufficient antitoxin within three months to prevent the positive Schick reaction. Fifty per cent of the remainder developed antitoxic immunity sufficient to give the negative Schick test before the end of the first year. The few resistant children received, then or later, a second series of injections and all of these children concerning whom we have information, became immune. In some later investigations, we have met with an occasional child who resisted even two series of injections.

IMMUNIZATION OF SCHOOL CHILDREN

The success achieved in these thousands of children encouraged us to attempt the immunization of the children of New York City. After consultation with the Health and School authorities, we determined to put our chief efforts during the years of 1920 and 1921 into an attempt to immunize as many school children as possible, rather than to endeavor to protect the children of pre-school age who needed the protection so much more. The reasons for this were many and important. It was deemed wise to acquaint as many parents

and others as possible with the value of the Schick test and the toxin-antitoxin injections. No better way seemed available than to use the schools as the means of doing this. If each pupil presented his parents with a circular picturing the danger from diphtheria, describing the preventive treatment and asking for permission to administer this treatment if the family physician approved, it would mean that nearly a million adults and a million children would have the arguments for the use of the toxin-antitoxin vaccine presented to them in a favorable way. If, as we hoped, about one-half of the children brought back the acceptance of the offer to give them the toxin-antitoxin, we should be able not only to immunize those shown by the Schick test to possess no antitoxin but, by preventing those children from contracting diphtheria, we should also prevent their carrying diphtheria home to the younger children in their families.

The testing of the school children would also give us the chance to determine exactly what effect upon the incidence of diphtheria the immunization had had. We decided to assemble in a file the names of 100,000 children who had been tested and, when Schick positive had been injected with toxin-antitoxin; also in a similar file the names of 100,000 children of the same ages who had refused the test and the injections. The cases of suspected diphtheria occurring among the children of school age could then be looked up in either file and observations made as to how many cases of diphtheria occurred in the two groups. We believed that after several years of such observations we should have evidence of convincing value as to the protection guaranteed by antitoxic immunity developed in response to the toxin-antitoxin injections.

Although the methods which we have adopted in the diphtheria prevention work in the schools have already been published (No. 96 of the Reprint Series, Department of Health, City of New York), I will describe them briefly for those who are not familiar with them:

A very important point is the enlistment of the principal of a school. As a rule, Dr. I. H. Goldberger, of the Bureau of Educational Hygiene of the Department of Education, first prepares the way by obtaining permission for us to do the work in a given school. According to the borough in which the school is situated, Dr. Zingher, Dr. Schroder or one of their representatives sees the principal and explains fully the objects we have in view. Literature is left for the teachers. Either the principal or the physician meets the teachers in a conference, gives them the necessary information and tries to arouse their enthusiasm. The

success or failure in getting a favorable response from the children or their parents, depends largely on the interest which the principal, the assistant principal and the teachers take in the matter. When they give us their enthusiastic co-operation we expect to obtain consents from three-fourths of the parents; when we fail to arouse the teachers' interest we are fortunate if consents are obtained from one-fourth of the parents.

The preparatory work being finished and the date for the test being determined, we send to the school the circulars and consent slips to be taken by the children to their homes. At a suitable time the physicians from the laboratory with nurses from the Bureau of Child Hygiene visit the schools and test and inject the children who have received the consent of their parents. After an interval of three to six months the children who received the injections are retested and those who give the negative Schick test are given a certificate of immunization, while the others are offered a second series of injections. The following table gives the results in a few of the schools:

TABLE

Results of Attempted Immunization as Shown by Schick Test Three or More Months After Treatment with Three Injections of Toxin-Antitoxin. Children from public schools of Brooklyn. Tests by Dr. Schroder.

Number of School	Total Number of Children Retested	Positive Cases Which Became Immune	Per Cent	Length of Period Between Treatment and Retest
158	370	254	68.7	3 months
156	329	292	88.8	3 months
173	163	144	88.9	4 months
29	57	45	79.0	5 months
142	127	112	88.0	5 months
50	82	74	90.3	6 months
16	241	216	89.7	6 months
72	199	195	98.0	6 months
109	141	99	70.0	6 months
4	103	91	88.4	7 months
Total	1812	1522	83.9	

Dr. Zingher retested 2,100 school children living in Manhattan who had received only two injections of toxin-antitoxin. Four months after the completion of the treatment only 53 per cent. gave the negative Schick reaction. The positive reaction in many of the others was less marked than at the original test. The results with these children convinced us that it was better under ordinary conditions to give three rather than two injections. It will be well to discuss here the question of certificates, which are given as a valuable possession for the child and for future reference in the schools. These are given to the children in two forms: The first simply states that the injections have been received; the other that

an original Schick test or a retest has established the fact of immunity. One should never give a certificate of successful immunization after merely giving the injections of toxin-antitoxin to a child who had been Schick positive, because we know that anywhere from ten to twenty per cent. of the non-immune persons will not be fully protected from diphtheria by one series of injections. Such a certificate would often give a false sense of security to the parents. The Health Department therefore issues an immunity certificate only after obtaining a negative Schick reaction at the retest. Retests are made four to six months after the completion of the injections.

PERMANENCE OF NEGATIVE SCHICK REACTION IN PERSONS WHO DEVELOP NATURAL IMMUNITY

At the same time that Drs. Schroder and Zingher were endeavoring to determine the duration of the antitoxic immunity stimulated by the injections, they also repeated the Schick test in the children who had given negative reactions originally. It was of extreme importance to determine whether the development of natural antitoxic immunity was a permanent acquisition.

At the Convent of St. Dominick, ninety-four of the original children who had given Schick negative reactions remained for five years. These children were retested at the two- and five-year periods. In both tests ninety of these children showed negative reactions, while four showed positive reactions in one or the other retest. It is an interesting point as to whether the children who were negative originally had really lost their antitoxin or whether the apparent change in reaction was due to other causes, such as the use of slightly stronger toxin in making the test, or a fault in technique.

Similar results as to the persistence of the negative Schick test were obtained among the children in other institutions. It is safe to assume, therefore, that once a child has developed a natural antitoxic immunity, that this is usually a lasting characteristic. As we know from tests that the amount of antitoxin in persons fluctuates somewhat, it is natural that a very small percentage of the children who have shown the negative reaction should give occasionally the moderately positive one in a later test.

This tendency to a moderate variation in the amount of antitoxin when taken in connection with the possibility of error in performing the test, makes it advisable always to give antitoxin to any one that shows the symptoms of diphtheria. It is better to give it to the great majority who do not need it than to refuse it to the small minority who require it.

THE COMPOSITION OF THE TOXIN-ANTITOXIN VACCINE

We knew from animal experimentation on horses that a large amount of over neutralized toxin could be safely injected and that this altered toxin would give more antitoxic response than an equivalent amount of straight toxin. Our belief originally was that a large amount of toxin almost completely neutralized was better than a smaller amount less neutralized. Because of this reasoning we have used until recently 1 cc. of a mixture containing three L+ doses of toxin (150 minimal lethal doses for a guinea pig) neutralized to such an extent that 5 cc. of the mixture would produce paralysis in a guinea pig. This preparation was effective, but because of the large amount of bacillus protein which necessarily accompanies so much toxin, it caused rather severe reactions in some individuals. We also tried giving five L+ doses of neutralized toxin. This gave us no better results. The thought occurred to me that possibly a very much smaller amount of toxin might give as good results, so I determined to try one-half of an L + dose and also one-tenth of an L + dose of toxin. The children receiving the one-tenth of an L + as a dose, have almost no annoyance from the injection. The reactions in adults are also much less. A portion of the children in one large school have just been injected with these preparations and we will soon know the results.*

COMPARATIVE INCIDENCE OF DIPHTHERIA IN TREATED AND UNTREATED CHILDREN.

We have under observation and have indexed 180,000 children, of whom 90,000 have been Schick tested. Of these 90,000 about 60,000 gave the negative Schick test originally; about 20,000 were negative on the retests after the injections, while about 10,000 of those who were originally positive and who received two or three injections, have either not been retested or, on retest, were found to be positive. The following statements give our findings.

Number of Suspected Cases of Diphtheria Developing During the Months of January, February and March in 90,000 Untreated School Children and in 90,000 Who Had Been Schick Tested, and When Positive, Given Two or Three Injections of Toxin-Antitoxin.

90,000 children tested and when positive injected	12 cases
90,000 untested and untreated children in same school.....	54 cases

We find, therefore, among 90,000 untreated school children there developed four and one-

* A retest made by Dr. Schroder early in June reveals the fact that the results are as good in the portion of children receiving the small amount of less neutralized toxin (one-tenth L plus dose) as with those receiving the larger amount of more neutralized toxin. We have decided, therefore, to use the new preparation as soon as it can be prepared.

half times as many cases of probable diphtheria as developed in the 90,000 tested children.

The 12 Cases Occurred Among the Groups of the 90,000 Tested Children, as Follows:

80,000 children Schick negative either originally or after injections....	4 cases
8,200 originally positive but not retested after injections	4 cases
1,800 originally positive and on retest found to be positive after an interval of 3 to 6 months after injections	4 cases

Among the 8,200 who were originally Schick positive and were not retested after the injections, four cases developed. These 8,200 were, as a rule, among the latest to receive the injections. The 1,800 who in spite of the injections developed insufficient antitoxin to prevent on a retest a moderately positive Schick reaction, showed the highest incidence of the disease. This result emphasizes the necessity of a Schick test several months after the completion of the injections. Those individuals who still give the positive reaction, should receive a second series of injections.

As corroborative of these results, it is interesting to note that during the past six months diphtheria cases and deaths in New York City have been many less than ever before. We feel greatly encouraged by the results obtained and expect to make every effort to complete the immunization of every school child in New York City.

The death rate from diphtheria during 1921 was less in New York City than in the State outside of New York City. This has never happened before. Now that the State is taking up the active immunization it will be most interesting to note the result.

RESULTS OF ACTIVE IMMUNIZATION WITH DIPHTHERIA TOXIN-ANTITOXIN IN THE PUBLIC SCHOOLS OF NEW YORK CITY (MANHATTAN AND THE BRONX).*

By ABRAHAM ZINGHER, M.D., Dr. P.H.,
NEW YORK CITY.

DURING the year 1921 and during the first five months of 1922 over 150,000 children were tested with the Schick reaction in 125 public schools and 6 parochial schools in the Boroughs of Manhattan and the Bronx. Each child received a Schick test with the unheated toxin and a control test with the heated toxin. The children, who gave a positive or a positive-combined reaction were rejected with two doses, each 1.5 cc. of toxin-antitoxin at intervals of seven days. Since January 1st, 1922, each child has received three

injections of toxin-antitoxin at intervals of two weeks.

Five different mixtures of toxin-antitoxin were prepared at the Research Laboratory by Dr. Banzhaf under the direction of Dr. Park and were used in the schools. All the mixtures were under-neutralized, the slight excess of toxin being about the same in each preparation. The mixtures contained from 3 to 5 L+ doses of toxin to each cc. When tested in the guinea-pig these mixtures produced paralysis in eighteen to twenty days in doses of 1 to 5 cc.

In 23 of the schools retests were made in the spring of 1921 from two and one-half to three months after the injections of toxin-antitoxin. The children who still showed a positive though fainter reaction were given one or two more injections of toxin-antitoxin. In 15 of these schools Schick retests were made for a second time in the fall of 1921 in from four to seven months after the injections of toxin-antitoxin. In 25 additional schools where injections had been made in the spring, retests were made for the first time in the fall. Retests have not yet been made in the remainder of the schools immunized.

The results of the retests for active immunity in the injected children are interesting in showing the following points:—

1. With the same mixture of toxin-antitoxin the immunity response in the schools has varied in different groups of children as much as from 21 to 75 per cent. The most probable explanation of these results was found by comparing in the same schools the percentage of children found to be susceptible at the original Schick test with the percentage of children who became actively immunized after toxin-antitoxin. We noted that the higher the percentage of susceptible children in a school, the poorer was the response to toxin-antitoxin; the lower the percentage of susceptible children the better the response to toxin-antitoxin.

Children attending schools located in the poorer sections of the city are probably more frequently exposed to infection with the diphtheria bacillus. In consequence of this their tissue cells are stimulated. In some a sufficient amount of antitoxin is produced to give a negative Schick reaction. In others, while there is not sufficient to give a negative Schick reaction, on account of the previous stimulation the cells give a good response to the injections of toxin-antitoxin.

A preliminary stimulation of the tissue cells has taken place in the Schick positive children as a result of repeated exposure to infection with the diphtheria bacillus. This preliminary exposure greatly facilitated the subsequent production of antitoxin in response to injections of toxin-antitoxin.

* Read at the Annual Meeting of the Medical Society of the State of New York, at Albany, April 19, 1922.

In the schools located in the better sections and attended by the children of the more well to do the percentage of positive Schick reactions at the original test was generally found to be very high. Relative segregation and isolation with very little exposure to infection most likely explains this interesting fact. When these children were injected with toxin-antitoxin their cells, not having been previously stimulated, gave a poorer response to the injections of toxin-antitoxin.

2. A second series of one or two injections of toxin-antitoxin given at the time of the retest to the children who had failed to become immune after the first series of two injections was followed by the development of an active immunity in from 60 to 80 per cent of the children so treated. These percentages seem to have no relation to the original percentage of positive reactions in the schools.

3. Altogether the children in the various schools who were injected with two to four doses of toxin-antitoxin developed an active immunity in the proportion of from 70 to 90 per cent.

4. No symptoms of anaphylactic shock were noted with the giving of the second series of toxin-antitoxin injections. Even an urticarial rash was rare. Only three children were reported to me who had such a rash after an injection of toxin-antitoxin. This rash developed about the seventh or eighth day after the injection.

We are now giving in the schools three injections of toxin-antitoxin instead of two. The dose is 1.25 cc.

The injections are given at an interval of two weeks instead of one. The longer interval has the advantage in allowing the local reaction to disappear more completely before the next injection of toxin-antitoxin is given. There may also be a better antitoxin response when the injections are given two weeks apart.

We expect to complete the Schick work in most of the public schools by the end of this spring. With the beginning of the summer and extending on into the coming year a drive will be made to reach a large part of the children of pre-school age. It is most likely that the Schick test will be omitted in these young children, and the three injections of toxin-antitoxin will be given only. The development of immunity to diphtheria will be subsequently determined by the application of the Schick test to the children on entering school. In this way it is hoped to reach the most susceptible group in the population and to gradually develop a diphtheria immune pre-school and school population.

GONOCOCCIC VULVO-VAGINITIS IN CHILDREN AS A HOSPITAL PROBLEM.*

By EDWARD J. WYNKOOP, M.D.,
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THE familiarity of Pediatricians with outbreaks of various types of contagious diseases in hospitals in which children are received as patients needs no special emphasis. The average children's hospital and children's wards in spite of great improvement in preventive measures, still have periods when contagion gains a foothold and proves at times most difficult to eradicate.

The period of isolation which is now required before admitting a child to the main wards, has served to reduce very materially outbreaks of scarlet fever, measles, diphtheria and the various other contagious diseases. The control of diphtheria by anti-toxin, the preliminary culturing of the nose and throat in all children before admittance to the main ward, together with the field that is now open to use with the knowledge that has been gained by the Schick test and the immunization of individuals with toxin-antitoxin should soon spell the doom of diphtheria as a hospital scourge.

Gonococcic Vulvo-Vaginitis as a disease that may in a most unexpected manner sweep through a hospital ward infecting the female infants as yet has proved a hard proposition to fight. To those hospitals that have had no experience with this kind of an epidemic, this paper is especially dedicated and may they take warning that every possible known measure must always and continually be observed in order that it will not gain a foothold. Its presence in infancy and childhood is unquestionably much more common than is generally supposed. Griffith says, girls of any age, even infants and the new-born, are very subject to this disease.

It is very prevalent in institutions and asylums for the young where there is more or less crowding. In private practice it is not always as prevalent among the well to do as among the poor. Evidence points to the fact that more cases exist when crowding and poverty go hand in hand.

The origin of the infection by the *Gonococcus* of Neisser in infancy and childhood unquestionably arises from the adult, many times some older person in the family suffers from the disease and then the infection is usually transmitted accidentally and is non-venereal as a rule. The *clinical* point of interest apparently is that in infancy and childhood, the type of disease is undoubtedly much milder than in adults, and *complications* are not so common. According to most authorities

* Read at the Annual Meeting of the Medical Society of the State of New York, at Albany, April 19, 1922.

(Holt) the gonococci resembles that found in adults as proven morphologically and culturally. By some it is thought that there must be some different type of gonococci present owing to the fact that the severity of *symptoms* and *complications* are much less in infants and children than in grown-ups. In hospitals for infants and young children the disease is transmitted through the diaper, hands, thermometer, towels or any other article that has come in contact with an infected child. Most authorities feel that the diaper and soiled hands are usually the source of the spread of the contagion (especially in institutions). Much emphasis must be placed on the method by which this disease may be spread, for even with unusual precaution if thermometers, towels, bedding, basins, toys, everything that comes in contact with the patient is not kept exclusively for each individual separately the disease will continue.

Other ways may be responsible for the spread of this infection but are not so usual. Ophthalmia occurring as a complication following infection of the vaginal tract is not common. Articular symptoms, glandular involvement, other complications which occasionally appear, are not the rule. In older children such complications as peritonitis, involvement of the cardiac area, meningitis, etc., are occasionally seen, but almost never in infants (Holt).

Children who remain in hospitals for long periods of time such as some of the difficult feeding or orthopedic cases seem to become peculiarly susceptible to all types of infection and especially so to gonococcal vaginitis. Many of these children when entering the hospital are in very poor general condition and are very susceptible. Some authorities state that children who have had their general resistance lowered by scarlet fever, or measles, are very prone to the infection.

(1) Smith (R. M.) has called attention to the fact that the feeble-minded children often act as centers of infection. There is every reason to believe that the vaginal mucus membrane in children is very susceptible to this kind of infection.

(2) Maier and Taussig say that this susceptibility to invasion by gonococci is largely contributed to by the fact that the pavement epithelium of the vagina in early life is soft and tender and in reality more closely resembles the columnar than the pavement type.

(3) Holt points out that in addition to this susceptibility the want of protection of the mucus membrane owing to the small size of the labia, furnishes another reason for ease of infection.

Oftentimes the clinical symptoms are so slight as to escape notice and only by obtaining smears from the infected vaginal tract is a positive diagnosis made.

The symptoms vary greatly, the mild cases showing but very little general disturbance, only occasionally slight redness of the parts, and a slight yellow discharge. In the severe cases, the discharge is yellow and thick, there is glueing together of the labia with excoriation of the surrounding skin. The vaginal mucus membrane looks red and inflamed, the inflammation extending to the cervix, urethra and surrounding tissue. The infection may travel into the interior of the uterus and so light up trouble in the tubes and peritoneum, but this is fortunately rare in infants and young children. The constitutional disturbance is sometimes marked by slight fever, loss of appetite, oftentimes loss of weight, and symptoms pointing to an infection of the genito-urinary tract as evidenced by discomfort while urinating and the presence of pus and albumen in the urine. In a recent small epidemic, slight loss of weight, loss of appetite with slight fever and symptoms of urinary disturbances were noticed early in some cases before the true nature of the infection was recognized.

Holt states that when one considers the fact that complications are infrequent, it seems most fortunate. Unquestionably many of the cases are unrecognized, probably oftentimes entering a hospital for treatment for some other disturbance and leaving it without the true nature of the disease being ascertained.

While the disease may be apparently mild, it is frequently very chronic, lasting for months and years. The average mild attack may be only a few weeks, 4 to 6 weeks being a fair average. Relapses are frequent. The period that the case may remain infectious may extend for months or years. Usually the gonococci is easily found in the discharge.

The clinical diagnosis, however, should not rest alone on the findings of the organism, but all cases with suspicious clinical symptoms presenting a purulent vaginal discharge should be considered infectious and so treated especially in the presence of an epidemic. Sometimes it is extremely difficult to find the organism; yet the clinical symptoms may be characteristic.

The presence of the gonococci is frequently hard to detect in cases that have been under treatment for a considerable period (Kerly).

The treatment of this disease will not be considered in great detail—suffice to say that keeping the parts clean, the use of injections, douches, local applications, have all been tried with varying results. It will perhaps be well to quote from a few well known sources to show the great diversity of opinion in regard to (proper) treatment. The following quotation is from Holt:

The first essential is local cleanliness which must be secured by bathing the external organs twice a day with a solution of boric acid or some

similar preparation. (It is very important that the vagina be protected by a napkin to catch the discharge and everything that comes in contact with the discharge should be burned.) In spite of the obvious objections to their use, irrigations are probably the most valuable of the local measures we possess. These should be made daily if possible and through a catheter whose tip is carried well into the vagina. Boric acid solution or permanganate of potash 1-2,000 to 1-5,000, ichthyol 1-1,000, or bichlorid 1-10,000 may be used.

Following the irrigation, local applications should be made every second or third day of nitrate of silver of 10 per cent, or argyrol 20 per cent strength. These should be made with an applicator through some sort of a speculum—the female urethroscope answers very well for small patients—and the child kept upon the back with the thighs in contact for a short time. If the cervix is involved local applications made in the manner indicated are essential if anything is to be accomplished.

(5) Adkins believes that the disease runs its course in spite of all one can do to cure it. Certain local measures he finds of temporary benefit. Among these is the injection of suspensions of living lactic acid bacilli.

(6) Taussig believes in rest and general tonic treatment. He does not believe in irrigations, but prefers instillations of a solution of argyrol, 25 per cent in the early stages; later a 1 per cent to 4 per cent solution of nitrate of silver.

(7) Kerly notes that cases clear up spontaneously after an indefinite course, due to the attenuation of the organism. This explains the comparative rarity of cases extending beyond the third or fourth year. He also sounds a timely warning that a large number of cases should be studied before reporting results from any form of treatment, as occasionally a run of mild infections occur and the physician, in such an event, would become unjustifiably enthusiastic about the method of treatment.

(8) Koplik is of the opinion that this is a self limited disease.

The vaccine treatment has some advocates, but so far the consensus of opinion is that the vaccines have not proven of much help.

The above references to various methods of treatment show that any form of treatment is many times unsatisfactory and that at present there is no very satisfactory method.

The prognosis of these cases, so far as life is concerned, is good. Most of these cases recover completely in time, and so far as can be ascertained little if any permanent damage to the vagina and surrounding parts occurs. This statement applies to infants and little children, not to

older ones, for this paper is intended to treat only of these cases under 3 years. The general health of these little patients is seldom permanently impaired, though one must always feel that probably the great majority of hospital patients have not the resistance seen in children in private practice. The profuse vaginal discharge will ultimately stop and the gonococci disappear, though one must remember that months may elapse, even years, before a cure is effected. The period of incubation is short.

Kerly claims that in 2 or 3 days after a child has been exposed to the disease, it will usually begin to show symptoms of the infection. Cotton states from 2 to 10 days. Some English authorities state that it may be as long as 3 weeks. The problem that confronts the hospitals is threefold. First, the prevention of these cases entering the hospital unrecognized and so infecting many of the susceptible infants and little children (little patients). Second, to improve if possible the resistance of infants and little children who are patients in the hospital so as to render them less apt to be infected. Third, the proper treatment, including prophylaxis, so that when a case of known infection is admitted it is handled in a proper manner and does not become a menace to the other patients.

First of all, infants and little children should be in quarantine if possible in a separate building at least two weeks before being admitted to the main buildings or wards. During this time vaginal cultures and smears should be taken every third or fourth day during this time to determine if possible the possibility of infection. As before stated everything that comes in contact with patients, whether infected or not, should be used only for that individual. This includes diapers, toys, thermometers, etc. At the end of two weeks all smears being negative, the patient is admitted to the main part of the hospital, but even then smears should be taken at least once a week during the patient's stay in the hospital to make sure no vaginitis exists. The rule also in regard to all articles which come in contact with these patients (being kept separate) should always be rigidly enforced. This is probably the only safe plan. Second: Can we not in some manner improve the general surroundings of these hospital cases so as to increase their resistance and lessen their susceptibility to infection? It would seem that in place of the large wards containing 18 to 20 cribs, or beds, the small ward with 4 to 6 would be a slight improvement. Smaller wards, well lighted, well ventilated, where these little ones could have access to outdoor porches and the avoidance of crowding are important facts worthy of consideration.

It has always been a wish of mine, and one which has never been fulfilled, to be able from time to time to move patients out of a ward

which they have occupied for a considerable period of time into another ward and let the ward that had been occupied very continuously be unoccupied for a few days before moving the patients back. There may be little of interest in this, but when infection has occurred it has often been my wish that after removing the infected patient all the rest could be placed in temporary quarters so that the original place where the infection started could be unoccupied for a few days at least. This would mean additional room in the hospital and of course that would mean additional expense. Small wards and more of them would mean more nurses, another item to be considered, but an important one. The advisability of always keeping visitors out of the children's wards at all times is a desirable procedure. Many times it would pay us to observe the character of the crib or bed these little ones occupy. Some of these little patients, even in the warmest weather have the sides of the cribs so surrounded by protective clothing that fresh air cannot easily reach them. They occupy a veritable pit which becomes a forerunner of a deeper one if care is not taken. For of all classes of patients that need the stimulating effect of fresh air, these little ones take the lead.

Some authorities hold that many new born babies are infected at birth from the mother who has gonorrhoea and recommend in the new born in all suspected maternal infections a few drops of silver solution be placed in the vagina of the new born infant as a prophylactic measure. (Taussig and Maier.)

That these cases in new born infants are frequently overlooked and are many times the starting point of an epidemic is held probable by some well known writers.

All female infants remaining in the hospital should have smears taken at least once a week during their sojourn in the institution.

While so much is now being done to prevent ophthalmia in the new born, would it not be a wise measure at least in all female babies born in hospitals to have a few drops of silver solution placed in the vagina as a prophylactic measure, preceded by a smear to find out if infection had taken place?

The uncertainty that surrounds these cases makes it imperative to treat every female infant as a possible source of infection and, therefore, to carry out in the minutest detail all effort at keeping all clothes, diapers, thermometers, toys, etc., belonging to each child absolutely for each individual patient. The nurse should not go from one child to another after changing diapers or handling the patient without washing the hands. All rules should be enforced so that each child is practically segregated.

The treatment of a case of Gonococcic Vaginitis requires the greatest possible care so that the infection will not spread to other patients. These cases should be quarantined in a separate room with separate nurses, the same as a case of scarlet fever or diphtheria.

This is unquestionably a contact disease, and its measure of precaution should be similar to scarlet fever or other of these diseases to which children are susceptible. As Dunn aptly remarks, upon the discovery of a case of infection, the child should be isolated under a quarantine fully as strict as that employed in scarlet fever and measles. As far as the danger of spreading is concerned, I would far rather have a case of scarlet fever get into my wards than one of Vulvo Vaginitis. In so far as it is possible, nurses and attendants caring for these infected cases should care for no others.

Bacteriologists tell us that this darned bug is an easy one to kill. That simply by washing the hands, or a few moments in the air and sun will kill the germ, but if there is any epidemic that is hard to check it is one of Gonococcic Vulvo Vaginitis. Chapin holds that the most satisfactory way to check an epidemic or, better yet, to prevent it, is strict isolation of all things that come in contact with each (female) infant and burning of the diaper—no diaper being used a second time. This looks like an expensive problem, but it seems most reasonable.

In regard to when it is safe to consider a case cured, the following opinion of R. M. Smith is a fair average. The disappearance of all symptoms after adequate treatment with persistent vaginal smears and negative complement fixation test is a fair indication of a cure.

The question of the infection of the new born with specific vaginitis is not a new one. The possibility of some of these new born babies often being infecting from the mother and at a later period showing symptoms of the disease or acting as carriers and being responsible for the infection of other cases seems reasonable.

In order to obtain some information along these lines, the obstetrical department of the Syracuse Memorial Hospital, in charge of Drs. Jones and Schoeneck, and the chief of the laboratory, Dr. W. A. Groat, were consulted to see what information could be gained from new born babies. It was decided to take smears from the vestibulum vaginae in all new born female babies on the first and fourth day. Smears on the first day might give some information relative to the possibility of maternal infection, while the fourth day would be the proper time at which to expect gonococci to be found if the baby were infected. This investigation has only just been started. No detail report is ready. Even if only one case out of a hundred is found, it will certainly be worth while.

If we are able to demonstrate the gonococci in any of these cases, prophylactic treatment of the vaginal tract will be a routine measure.

Discussion.

DR. JOHN AIKMAN, Rochester: Dr. Wynkoop has presented a complete and valuable study of this subject. The most important method we have of combatting this disease is to make vaginal smears on every child admitted to our hospitals. While we have been making complete physical examinations of new born infants and ordering smears on all suspicious cases, Dr. Wynkoop's idea of smears on all new born infants is a better plan.

We should not be satisfied with a single examination on admission, but should have routine smears made every two weeks on children remaining for a long time in our wards.

When positive smears are obtained the children should at once be removed to the contagious wards or hospital and no attempt should be made to treat the condition in the general wards.

Five years ago we had to refuse admission to several cases at the Infant Summer Hospital because of positive smears. This was criticised by our health department, but when our position was explained the cases were admitted to the Municipal Hospital and an epidemic in our hospital avoided.

I hope that Dr. Wynkoop's further studies will show us just how much permanent damage this disease does to small infants.

THE TREND OF OUR ATTITUDE TOWARD HEART DISEASE IN CHILDREN.*

By GEORGE R. IRVING, M.D.,
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IT has been only within the last few years that the importance of heart disease among children has become generally appreciated. This, undoubtedly, has arisen from a more clear understanding of the incidence of this type of involvement, and from a closer study of some of the factors concerned in its possible production, together with a change in our attitude toward the management of the individual who may be the victim of this trouble. When one realizes that examinations in New York City have shown that over 1 per cent of children of school age have a serious heart defect, it can be seen that we are dealing with a problem of vital importance—over 10,000 children in this single community.

Classification of heart disease may be considered along the following lines:

As to etiology, we still divide heart disease into two large groups—congenital and acquired. The

congenital may be further divided into those due to an arrest of development of certain structures, obeying the same general laws as other developmental conditions, and the result of foetal endocarditis—the more rare condition in which anatomical evidence points to the presence of an infectious process in the fully developed foetal heart. Acquired heart defects are divided into organic and functional classes. Organic acquired heart disease may be the result of an infectious process—the effect of a bacterial invasion, or toxic, due to circulating poisons. There is still a group of acquired heart disease where actual organic disease cannot be demonstrated, but the greater number of which may later be shown to be caused by the processes before-mentioned. This group may be regarded as a collection of border-line cases only slightly removed from those within the range of the physiological.

With regard to the duration of the process, we have the acute stage embarrassment—immediate effects of a recent process. Observation has shown that this stage is of longer duration than has been supposed, and not restricted to a certain number of weeks as was the former belief. The chronic class embraces all those exhibiting after-effects of damage done by an acute process. Between these two lies the very indefinite and poorly determined transition stage, referred to as the group with sub-acute involvement.

Anatomically, we have to deal with Endocarditis, meaning involvement of the lining membrane, and with Pericarditis, a process localized in the covering tissue and its perietal reflection. The group known as Myocarditis, or a process localized in the muscular stratum occurs rarely, if ever, as a separate entity, but is always associated with endo- and pericarditis. Undoubtedly this involvement will be found to be the cause of many of the conditions of so-called functional heart disease. Actual round cell infiltration into the muscular tissue can be demonstrated, but this pathological process is not of as frequent occurrence as was formerly believed, except as an extension of endocardial or pericardial involvement. The term myocardial weakness is coming into greater use to explain an affection of the muscular structure without implying the active bacterial invasive process, and yet one contributing to the heart embarrassment through lack of power to carry out the work usually accomplished. Experience has shown that more often than is usually considered, there is an involvement of all the cardiac structures, a condition which has been appropriately termed "Pan-carditis," or more simply "Carditis."

A more recent classification has been evolved ignoring the etiology, the location of the particular heart layer affected, as well as the chronicity of the process. This grouping takes into consideration the functional capacity of the heart to

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accomplish the work expected of it, no matter how extensive the defect nor from what cause.

Heart conditions, according to this, fall into five groupings, the first three of which are composed of actual organic defects arranged according to functional result. In Class 1 there is evidence of actual disease, but the patient is able to go about his usual routine, consequently no functional impairment results. In Class 2 there is some impairment of function, subdivided into (a) slight, and (b) marked, so that the patient is capable of limited activity. Group 3 comprises those with serious functional impairment, the class usually designated as "decompensated." Class 4 consists of those patients having findings suspicious, only, of organic disease, that is, instead of having actual defects they are known as having "possible heart disease." Whenever there is a history known to predispose to organic heart trouble, this patient is placed in the last group, Class 5, or the "potential" class. It will be seen that this last division is based entirely upon a history of experience with rheumatism, chorea, or localized infection, affecting the tonsils, teeth, sinuses, ears, glands or intestinal tract. This classification of heart defects according to the resulting functional capacity has standardized and to a large extent simplified the cardiac problem among children, as it gives us a neutral ground upon which to base our considerations without involving the causative factors, and disregarding the extent, anatomically, to which the process has affected the cardiac mechanism as a whole.

It will be convenient to group the material changes in our attitude toward heart disease into three divisions, diagnosis, treatment, and prognosis.

In general, the diagnosis is made much earlier. Instead of deliberating until several years have passed by, the congenitally defective heart is often discovered upon complete examination within a relatively short time after birth, or soon thereafter at the time of thoroughly going into the heart mechanism as part of the routine supervision of the infant. Greater attention is being paid to this routine heart examination, not only from the standpoint of the information that it may yield at the time, but also as a point in differential diagnosis in the event of subsequent discoveries. The family history of developmental defects as well as the actual presence of such defects in other systems aid in detecting the congenital heart.

Acquired heart disease is suspected from the history of certain predisposing factors—infectious processes as rheumatism, chorea, tonsillitis, forming one of the main groups in the newer classification. In this connection there may be present a fairly strong element of heredity, shown through the possibility of familiar resistance or susceptibility, and emphasized by the fact

that we frequently see several members of a family affected with acquired heart disease.

Greater importance is being placed upon findings outside the direct cardiac examination. A degree of subnutrition, growth or weight, has been found of such frequent occurrence as to be suggestive of heart involvement. The story of palpitation, if reliable, or of precordial pain, as well as the history of suffocating or fainting attacks, frequently refers to a disease of the heart. A temperature, with no other demonstrable cause or in connection with other evidences, may be found due to a cardiac process, although there is no characteristic type of febrile manifestation. The presence of abnormal pulsations have been found to be suggestive but not so reliable as a guide to heart affection as when observed among adults. Much information may be gained in a study of the quality of the pulse, as well as its rate and rhythm, and this observation may be the chief characteristic of certain heart involvements, particularly the arrhythmias. The respiratory tract may yield valuable information pertaining to the heart, by the presence of dyspnoea, or of cough, or the tendency to lung infections. It has been found that in the matter of color the occurrence of pallor or of flushing is even more frequent than the finding of cyanosis.

All these abnormalities in these fields throw important light upon the condition of the cardiac mechanism. Edema and clubbing of the extremities, while of frequent occurrence, are often thought to be late findings, or those due to a complicating factor, and not necessarily the direct result of a heart defect. Renal efficiency and intra-thoracic conditions other than those present in the heart, should be taken into consideration. Certain abdominal findings of importance in this connection are enlargement and tenderness of the liver, the occurrence of vomiting, and the presence of ascites. A decreased exercise tolerance is very suggestive of heart involvement.

The laboratories furnish considerable aid through examination of the blood and excretions, and by application of several mechanical instruments. Examination of the blood, particularly the hemoglobin and white cell count estimations, yields valuable information with regard to the presence of an acute inflammatory condition, or the response to a generalized process. The study of the urine, both as to the quantity of the excretion and the evidences of actual kidney involvement, furnishes information relative to the manner in which the excretory function shares in the general process. It is unfortunate that blood pressure observations yield no correct degree of practical information, in the absence of a standard during early life. Carefully interpreted X-ray findings based upon plate or fluoroscopic examinations not only materially aid us in diagnosis, but may often be relied upon in visualizing

the progress of the condition, particularly in involvement of the pericardium or extension into the nearby mediastinal and lung fields. It should be remembered that for a correct interpretation the physical conditions under which the X-ray are used should be under absolute control, and, preferably, the procedures carried out under standard conditions. The electrocardiograph and the polygraph are meeting with a somewhat restricted field among children, but the use of these instruments should not be minimized, especially in the matter of arrhythmias.

We have not found a better routine for considering direct cardiac findings than that of Cabot, wherein the observations are grouped into four classes: inspection, palpation, percussion and auscultation. Greater attention is being paid to the use of these first three methods of examination, but emphasis should not be laid upon them to the exclusion of auscultation. Changes in the shape and contour of the thorax, and particularly the precordium, are most suggestive of an early pathological process, but furnish relatively little assistance in the matter of differential diagnosis. It must always be remembered that these changes are resulting mechanical effects upon a yielding bony framework, and consequently are subject to wide variation. The presence of veins over the precordial region has been found of practically no application in the diagnosis of heart conditions among children. The finding of an increased area of pulsation is much less reliable than was formerly believed, as the condition of the subcutaneous tissues and the pathological processes of the lungs must be taken into consideration.

Greater attention is being paid to the finding of thrills and particularly the association of these palpable vibrations with certain types of murmurs. The shocks which may have an application in diagnosis among adults, are infrequent and of questionable interpretation among children. It is interesting that in the hands of some observers the left border of the heart is apparently as easy of determination by the method of palpation as by careful percussion. This method of delineation apparently applies only to the direct left border, and has an application among only certain types of children. The very reliable and early signs of the presence of enlargement or displacement of the heart is most easily brought out by percussion. The most accurate determination is effected when progressing from lung tissue toward the heart, and with the plexor finger approaching the heart dullness in a tangential manner. The old problem of whether hypertrophy or dilation be present or which of these two is the preceding phenomenon is not an important point for argument from the routine clinical standpoint.

The information elicited by means of auscultation may be divided under two headings: first,

those findings in connection with evidences of the normal action of the heart, the so-called "physiological" findings; secondly, the abnormal sounds produced, usually considered as the "pathological" auscultatory findings. By the normal findings we refer to the first and second sounds of the heart, an understanding of the normal character of which is of prime importance before attempting to apply one's knowledge in the field of possible pathological processes. The first sound is largely muscular in origin, best heard over the ventricular area, and characterized as of a low, dull, growling quality throughout the duration of systole. Abnormal findings in relation to this first sound form an important lead, not only in diagnosis, but in the framing of a prognosis. Greater attention is being paid to the significance of a deficient or poor quality in the first sound, as probably indicating an underlying heart musculature capable of reduced functional capacity. In certain types of heart lesions the relatively shortened systole, as brought out by a comparison of the length of the first sound with the next succeeding diastole, may mean a valuable point, in diagnosis, while an alteration in this rhythm might be relied upon as presumptive evidence of improvement in the underlying condition. The booming first sound does not occur as frequently as has been supposed, although the action of digitalis and other heart stimulants as well as a favorable reaction to treatment in general may lead to this finding.

Under normal conditions the second sound of the heart, largely valvular in origin, may be described as a short, clicking, high pitched sound, occurring at the end of systole, and with a normal accentuation at the pulmonary as compared with the sound at the aortic area. A marked accentuation or the absence of accentuation of this second sound is of great value, whereas the frequently demonstrable reduplication cannot be given a definite place as a diagnostic sign.

Murmurs and friction sounds comprise the group of abnormal auscultatory findings, and should be differentiated from the vibrations produced outside the heart tissues: muscle sounds, skin friction, lung sounds, as rales, the "cardia-respiratory murmur," et cetera. True pericardial friction has but one significance, whereas less importance is being attached to the cardiac murmur as a sign of actual heart disease. This applies particularly to murmurs occurring in systole. The statement has been made that at some time and under some condition or another, from 5 per cent to 40 per cent of children of school age show systolic murmurs. We cannot accept this finding as indicative of heart disease, but rather look upon it as to be regarded with suspicion, and to be followed up in the search for further evidence of a corroborative nature. Too great emphasis cannot be placed upon the point of stressing the

observations on the character of the first and second sounds of the heart, at the same time looking for information which may be of value in connection with the finding of murmurs. Changes in the character and location of murmurs, as well as in the intensity should be given full consideration in connection with other developments.

The treatment of heart disease among children should be continued over a longer period than has hitherto been deemed necessary. This is brought about in part by feeling that the acute state is of longer duration, and also by realizing the importance of treatment during the chronic stage, or in the intervals between exacerbations or reinfections. Greatest dependence was formerly placed upon medicinal therapy, whereas at the present time this form of treatment is but one of several, and might even be said to be one of the less important of this group. Undoubtedly there has been a reversion of our therapeutic measures to the physical means of securing results—rest, regulated activity, mechanical and dietetic types of therapy being as important as the strictly medical measures.

Rest is often difficult to secure, but a proper degree of relaxation is one of the most important single factors in carrying out the therapeutic routine. It is often necessary to change the patient's environment away from the family, and even away from the presence of other children, particularly during the first stage, when convalescents from other illnesses are found to retard the cardiac patient's progress. The value of a specially trained attendant familiar with this type of treatment cannot be overstated. The securing of rest is so important as to legitimize the resort to sedatives even of the most powerful type, in order that this phase of treatment may be properly begun. The older rule of allowing the child to do as much as he thinks himself capable, frequently leads to a poor judgment of the functional capacity in that the patient may become fearful of attempting to carry out any activity, or while attempting to carry on, may become seriously fatigued.

All activity must be supervised, and should be begun in small amounts, which are slowly and cautiously increased. It is safest to allow activity after a definite rest period, stimulating the patient's interest in such by using the activity as a reward for his co-operation in relaxing. The effect of activity must be carefully studied, and the form of activity applied to the individual patient, recalling that the effect upon the cardiac mechanism is an indirect one, but also remembering that clinical observations apparently have proved that the myocardium mirrors the condition of the skeletal muscles. The importance of play methods in securing activity cannot be overrated. It is only within the last few years that convalescent institutions have been open to car-

diacs, at first beginning with only the mildest and carefully selected cases, until now nearly all types of chronic or late acute stages are accepted. Activity is often extended to include occupational training among older children, as this has been found to be an important factor in the treatment of many adult cardiac conditions. Our greatest stress, however, is at present along play methods: games, dancing, supervised athletics, and the like.

The cardiac patient's dietary should be bland, non-irritating, and at the same time highly nutritious. An effort should be made to eliminate, as far as possible, any constipating factor, as well as any tendency to delay excretion through any channel. There is little doubt that a certain degree of undesirable stimulation is derived from a poorly arranged dietary. The tendency has been to secure a low protein dietary throughout the early treatment, at the same time endeavoring to balance the ration as early as possible.

Certain mechanical procedures are of utmost importance. In the field of counter-irritants, it is often found that heat is better borne than cold. Baths of varying temperatures, often with the addition of certain salts, may be relied upon to produce stimulating and sedative effects, as well as the antipyretic function. Routine care of the skin not only keeps up the local nutrition, but has a general bearing upon the excretion. The posture of the cardiac child should tend toward comfort, providing there is no additional strain in resorting to unusual positions. Massage and passive movements properly carried out may be found to be valuable methods in the routine of building up the nutrition. All cardiac treatment presupposes the maximum use of fresh air and exposure to sunlight as general hygienic measures.

We divide medical treatment into three classes, those appropriate to

- (a) The etiology,
- (b) The stimulation of the circulation,
- (c) General or intercurrent needs.

Salicylates and arsenic are the usually accepted members of the first group. Circulatory stimulants for immediate effect are: Caffeine, camphor, ether, atropin, and possibly strychnin, while for delayed action we rely upon digitalis and strophanthus. We often have need of sedatives, diuretics and laxatives which avoid depletion, as well as the iron preparations.

In connection with necessary surgical treatment should be considered the two main risks of shock and anesthesia. It goes without saying that in order to live up to the other therapeutic principles, surgical shock is to be avoided. It has been found that a carefully administered ether general anesthetic is most often preferable to incurring a risk of difficulty due to the mental attitude of the patient, under the stress of surgi-

cal procedures. Surgery should be appropriate to the original cause if operative, as for instance, removal of infected tonsils; or should be invoked to prevent further absorption, as in the clearing up of sepsis about teeth. Surgical removal of collections of liquid in the pericardium or other body cavities should be governed by the same considerations. There is no greater need for conservatism than in the surgery among cardiac children.

In almost every kind of cardiac disease occurring among children, the prognosis is more favorable. We must base an outcome upon the type of process and the resulting defect, or the possibility of added damage, resulting from further infection or repetition of absorption, upon the duration of the pathologic process and the involvement of other systems. These factors should be compared with the degree of co-operation, both of the patient and his people, the extent of involvement of the myocardial tissue, the reserve present in the cardiac mechanism, and, as in all fields of treatment, the individual response to the measures prescribed. Optimism should be the keynote, as only with the highest degree of encouragement can best results be anticipated.

Discussion.

DR. M. G. LEVY, Buffalo: The matter of the use of the Electrocardiogram in cases of arrhythmia has a much wider range than merely ruling out the respiratory or physiological arrhythmia. This is but one of several which can be diagnosed in this manner—heart block, partial and complete; "extra-systole"; fibrillation; bradycardia; tachycardia, et cetera.

Further work must be done to put our classification upon a firm, logical foundation. Resort to the classification by means of function while a marked improvement, does not entirely cover the requirements.

The matter of heredity in heart disease should be considered in the acquired as well as in the congenital type, from the standpoint of possible inherited lowered resistance to predisposing factors, as well as susceptibility to cardiac effects of these processes.

The use of opium should not be overlooked in the management of the serious heart case, as no other drug furnishes the much needed complete relaxation. Its use, however, should be a guarded one, in that a patient should at all times be under competent supervision, and free from the damaging effects of constipation and the like.

There is not a great deal that may be said with regard to the ulcerative or malignant types of endocarditis, except that in the matters of a more early diagnosis and laboratory help we may be

able to approach the problem in a more intelligent manner. Then, too, interval care and the removal of foci infection are important weapons with regard to a virulent process at some succeeding time.

THE EFFECT OF QUINIDIN SULPHATE ON THE AMBULATORY CASE OF AURICULAR FIBRILLATION.*

By WALDO B. FARNUM, M.D.
NEW YORK CITY.

THE recent literature concerning the treatment of cardiac disease contains many interesting accounts of quinidin sulphate as an important therapeutic agent. Particular emphasis has been laid on its use in auricular fibrillation. Some three hundred and fifty cases with this cardiac complication have been recorded with rather gratifying results. Investigators report a return to normal rhythm in about fifty per cent. of the cases. Following this reversion to normal comes a better degree of compensation, subjectively and objectively. The pulse is slowed, the deficit is lost, the dyspnoea less marked, the palpitation less frequent, and the precordial distress which is such a frequent and distressing complication in this condition is less objectionable. Many patients with very little cardiac reserve are enabled to return to work, and with an occasional course of quinidin, kept in condition to continue. The period of normal heart-action following quinidin sulphate appears to be a variable one. Some patients remain regular for only a few hours, while others remain so for several months.

This rather optimistic point of view with reference to the use of the drug is clouded by certain warnings. Some of these warnings have been expressed in print; others have crept into us in less public ways. This work has been experimental so far, and untoward reactions have occurred, such as rapid decompensation, irregular and distressing tachycardia, syncope, embolic manifestation and death.

Up to the present time digitalis has been the most useful of all drugs in the treatment of auricular fibrillation. Patients with marked decompensation resulting from this condition have been kept in comparative comfort for years under its regulated dosage. The fibrillation has, however, continued. The pulse remains irregular, but this irregularity is so slight that often the electrocardiogram is the only means of proof of the existing condition. The auricle is still in a fibrillating state, even though the pulse and the apex beat are equal and in rhythm comparatively regular. Quini-

* From the Adult Cardiac Clinic, St. Luke's Hospital, New York. Dr. S. W. Lambert, Medical Director.

din sulphate has gone one step further and has produced a normal auricular ventricular sequence in a percentage of cases, which varies with different observers. Opportunity to better digitalis action presented itself in this new therapeutic procedure, and since its introduction many investigators have claimed much in its favor. It was for this reason that the cases under treatment in the Adult Cardiac Clinic of St. Luke's Hospital were subjected to investigation.

Of the 170 cases of heart disease undergoing treatment in the clinic, there were thirty cases of auricular fibrillation. Twenty-two of these were considered available for this investigation. The patients were all ambulatory fibrillators. The degree of compensation varied in each individual. Some were able to earn their living. Of these, several had been placed in positions demanding a minimal of physical effort, through the institution of the good services of the Bureau of Employment for the Handicapped. Others, although not able to hold a position, were comfortable. All were able to be up and about. All were, or had been, under digitalis therapy. The question of dosage had been worked out to the best of our ability in each case. They were, in other words, our finished product of digitalis therapy. They had been studied in the hospital wards and in the clinic for long periods of times. It was with this group that quinidin was used.

The recorded cases of quinidin therapy previously reported have been almost entirely bed patients. We therefore felt that our ambulatory cases should be very carefully watched during treatment, and that small doses of quinidin should be used. The following scheme was tried. Cases were seen on the Friday night or Saturday morning clinic; digitalis was stopped on Sunday. A five-grain capsule of quinidin sulphate was taken on Sunday; if no ill effects were noticed, two five-grain capsules were taken on Monday. On Tuesday they were seen and pulse, apex beat, blood pressure, total quinidin dosage, and any subjective symptoms noted. If no reason presented itself for discontinuing the drug, two five-grain capsules were ordered until Friday, when they were again checked up. During the second week the same daily dosage was given in most cases; in some, three five-grain tablets were administered. All patients were in touch with the Social Service Department and with a physician. With this plan it seemed safe to start our investigation. Electrocardiograms were taken before quinidin sulphate was given, and subsequently to ascertain the exact status of the cardiac mechanism. The accompanying chart* gives in schematic form our results:

It seemed as though our cases presented this form of cardiac disease (auricular fibrillation) as it is found in any large community; we therefore awaited the result with real interest, but expectations of success were soon turned to qualms of doubt. It will be seen that in our series of twenty-two cases only three responded with normal rhythm. These three patients were in a fair degree of health before the treatment was initiated. They were slow fibrillators with none of the annoying symptoms which so often accompany the rapid cases with large pulse deficit. These cases with pulse deficit, on the other hand, were not helped, and even grew worse. Two of the three cases which returned to a normal rhythm were better subjectively.

One of the cases, No. 19, was a mild chronic nephritic. The heart was enlarged with left ventricular preponderance, but with no evidence of chronic endocarditis, the systolic murmur at the apex not being transmitted was considered a relative incompetency of the mitral valve as a result of hypertrophy and dilatation concomitant with persistent hypertension. The patient, a housewife with the care of a home and children, was perfectly able to do her work with a treatment consisting of small doses of digitalis, proper diet, and a reasonable amount of rest. She does feel better at present, and is still regular after 40 grains of quinidin sulphate given about one month ago.

Case No. 20, a slow fibrillator, showed an interesting feature as he changed from fibrillation to regularity. The patient had had an endocarditis, manifesting itself in double mitral disease. He had definite evidence of mitral stenosis with a diastolic rumble. As the auricle began to contract with more vigor and a slower rate under the influence of quinidin sulphate, the diastolic rumble began to take on a presystolic character, and when he became perfectly regular, there was a typical presystolic crescendo murmur with a well defined and located presystolic thrill at the apex. The pulmonic second also became more pronounced. The patient remains in the same degree of compensation as before taking quinidin sulphate.

Case No. 21, although rendered regular, is not materially improved, and has required several small doses in the last month to keep her regular. Her compensation remains about the same.

Untoward results of serious nature are lacking from our records. Cases which did poorly after the drug had been allowed a reasonable opportunity to help were given a rest period with digitalis therapy. Practically all were anxious to return to digitalis, and were very

* For chart, see page 17.

CHART

Case Number.....	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		
Age.....	49	40	41	41	...	43	62	48	38	72	57	61	32	48	60	55	45	61	50	66	57	67		
Sex.....	M	M	F	F	...	F	M	M	F	M	F	M	F	M	M	M	M	M	F	M	F	F		
Length of fibrillation.....	3 yrs.	2 yrs.	15 mos.	1 yr.	2 yrs.	C.C.V.D.	7 mos.	2 yrs.	5 yrs.	2 yrs.	3 mos.	4 yrs.	7 yrs.	15 yrs.	3 yrs.	1 yr.	3 yrs.	5 yrs.	3 mos.	3 yrs.	C.C.V.D.	4 yrs.		
Anatomical diagnosis.....	C.C.V.D. Chr.M. A.F.	C.C.V.D. M.R. A.F.	C.C.V.D. M.R. A.F.	C.C.V.D. M.R. A.F.	C.C.V.D. M.S. M.R. A.F.	C.C.V.D. A.F.	C.C.V.D. Dilated A.F.	C.C.V.D. M.S. M.R. A.F.	C.C.V.D. M.S. M.R. A.F.	C.C.V.D. M.R. A.F.	C.C.V.D. Chr.M. A.F.	C.C.V.D. Chr.M. A.F.	C.C.V.D. Chr.M. A.F.	C.C.V.D. M.S. M.R. A.F.	C.C.V.D. M.S. M.R. A.F.	C.C.V.D. Chr.M. A.F.	C.C.V.D. D.A.A.S. A.F.	C.C.V.D. Chr.M. A.F.	C.C.V.D. Chr.M. A.F.	C.C.V.D. Chr.M. A.F.	C.C.V.D. M.R. A.F.	C.C.V.D. M.S. M.R. A.F.	C.C.V.D. M.S. M.R. A.F.	
Electrocardiogram.....	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	
Apex beat.....	80	106	102	104	86	145	116	82	136	100	112	100	104	85	120	78	90	122	112	90	80	80	86	
Pulse at wrist.....	80	80	100	84	80	130	87	82	100	100	100	100	80	85	90	78	60	84	80	80	80	80	80	
Defect.....	0	20	2	20	6	13	29	0	36	0	12	10	24	0	30	38	30	44	44	10	0	0	6	
Blood pressure X.....	120	125	120	120	95	120	200	160	120	137	170	145	105	100	110	115	100	120	200	90	140	110	110	
Compensation.....	Fair	Fair	Poor	Poor	Poor	Poor	Fair	Fair	Poor	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Poor	Poor	Poor	Poor	Fair	Fair	
Weight.....	180	208	128	140	146	119	165	187	138	162	145	155	142	143	220 1/4	127	109 1/2	169	151	131	144 1/2	117 1/2	117 1/2	
Digitals (Digitalin).....	2-1	2-1	2-1	1 O.D.	2 q.2.d.	2 O.D.	1 O.D.	2 O.D.	2 O.D.	1 O.D.	1 O.D.	1 O.D.	2-1	1 O.D.	2 O.W.	0	1 q.2.d.	0	0	3 O.W.	1 O.D.	1 q.2.d.	1 q.2.d.	
Anatomical diagnosis.....	C.C.V.D. Chr.M. A.F.	C.C.V.D. M.R. A.F.	C.C.V.D. M.R. A.F.	C.C.V.D. M.R. A.F.	C.C.V.D. M.S. M.R. A.F.	C.C.V.D. M.S. M.R. A.F.	C.C.V.D. Chr.M. Dilated A.F.	C.C.V.D. M.S. M.R. A.F.	C.C.V.D. M.S. M.R. A.F.	C.C.V.D. Chr.M. A.F.	C.C.V.D. Chr.M. A.F.	C.C.V.D. A.S.M.S. A.F.	C.C.V.D. M.S. M.R. A.F.	C.C.V.D. M.S. M.R. A.F.	C.C.V.D. Chr.M. A.F.	C.C.V.D. D.A.A.S. A.F.	C.C.V.D. Chr.M. A.F.	C.C.V.D. Chr.M. A.F.	C.C.V.D. Chr.M. A.F.	C.C.V.D. M.R. A.F.	C.C.V.D. M.S. M.R. A.F.	C.C.V.D. M.S. M.R. A.F.	C.C.V.D. M.S. M.R. A.F.	
Electrocardiogram.....	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	A.F.	
Apex beat.....	100	100	95	120	100	160	120	100	100	108	148	82	110	90	90	140	130	108	80	85	60	60	60	
Pulse at wrist.....	80	92	80	88	82	120	108	80	80	108	128	82	82	90	60	75	130	128	80	85	60	60	60	
Defect.....	20	0	15	32	18	40	12	20	20	0	20	0	18	0	30	65	0	28	0	0	0	0	0	
Blood pressure X.....	110	100	145	110	90	95	170	145	110	150	190	140	100	95	120	120	120	175	240	120	120	140	140	
Compensation.....	Same	Less	Less	Less	Less	Less	Same	Less	Same	Less	Less	Greater	Less	Less	Same	Less	Less	Less	Greater	Greater	Same	Less	Less	
Weight.....	180 1/2	204	121	143 1/2	148	117	167	187	109	164	142 1/2	157	140	144	220 1/2	127	111 1/2	105	135	133	80	116 1/2	116 1/2	
Quinidin sulphate, gr.....	180	25	60	90	30	110	14	60	120	160	75	60	80	60	145	135	80	125	30	70	130	155	60	
Time, days.....	16	7	8	7	4	14	14	4	14	14	5	4	20	7	14	5	90	7	2	10	14	6	6	
Dyspnoea.....	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Palpitation.....	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Precordial distress.....	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Tachycardia.....	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Vomiting.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Edema.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dizziness.....	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Finitus.....	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Sweating.....	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Itching.....	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Before Quinidin Sulphate

After Quinidin Sulphate

Key to abbreviations:

C.C.V.D.—Chronic cardiac valvular disease.
 Chr.M.—Chronic myocarditis.
 M.S.—Mitral stenosis.
 M.R.—Mitral regurgitation.
 A.F.—Auricular fibrillation.
 D.A.—Dilated aorta.

In taking blood pressures the systolic was recorded when first heard; the diastolic as the loud sounds changed to faint. This was considered average blood pressure in cases of auricular fibrillation where the strength of ventricular contraction is so varied.

soon brought back to their previous degree of compensation before the administration of the quinidin sulphate.

The drug caused a number of subjective symptoms, such as dizziness, nausea, vomiting, headaches, sweating, tinnitus, palpitation, precordial distress, dyspnoea, nervousness, and shakiness which disappeared soon after the discontinuance of the drug. Two of our patients, Nos. 16 and 17, developed a very rapid tachycardia with large deficit and showed a considerable degree of decompensation on 35 and 80 grains of the drug respectively. One of these patients, No. 17, became quite dizzy about fifteen minutes after taking each five-grain capsule.

Case No. 18 developed a transient hemiplegia after 125 grains of quinidin sulphate was administered. This case developed acute vomiting, with rapid heart, and considerable deficit. The blood pressure rose from 120/80 to 175/105. Speech was thick. There was external strabismus of the right eye and weakness of the right side of the body. The pulse remained absolutely irregular during the whole of the attack. The blood pressure returned to normal. He gradually improved, having at the present time no residual paralysis. The pulse is now the same as when quinidin sulphate was started. This may or may not have been a quinidin sulphate reaction. This case had a similar attack four years ago, from which he entirely recovered. It seems as if the paralysis resulted from a spasm of cerebral vessels rather than from an embolus. This might have been brought about by the action of quinidin sulphate on the smooth muscle of the cerebral blood supply.

SUMMARY.

1. Of twenty-two ambulatory cases of auricular fibrillation only three responded to quinidin sulphate with normal auricular ventricular sequence. Of these three; one remained regular for only a few days. The others are still regular, the quinidin sulphate having been given about six weeks ago.

2. In the three cases which became regular, the compensation was not bettered to the extent hoped for or reported by other investigators.

3. The cases with unstable cardiac mechanism with rapid rate, pulse deficit, and little cardiac reserve derived no benefit from the administration of quinidin sulphate. They were in some instances made worse. All were glad to return to digitalis, and soon regained their former compensation under that drug.

4. In the ambulatory fibrillator with fair compensation, quinidin sulphate may be ex-

pected to re-establish a normal rhythm in a small percentage of cases; but even with this return the compensation is not materially bettered, and we had to fall back on the more efficient and safer therapy of digitalis.

I wish to take this opportunity for expressing my appreciation of the kind co-operation and for valuable suggestions given by the other members of our Cardiac Clinic, Drs. J. H. Keating, L. A. Bingaman, and Joseph Hajek, and Miss Etta R. Fulton, whose efforts on behalf of the Social Service Department helped greatly in carrying out this investigation.

TREATMENT AND PREVENTION OF CERTAIN MENTAL DISORDERS.*

By HENRY A. COTTON, M.D.,
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FOR many years those interested in the general problem of the insane and feebleminded were inclined to adopt a fatalistic attitude in regard to the treatment of these conditions. Consequently, custodial care has been the basic principle involved in these matters. If a patient was insane he was placed in an institution for the protection of others as well as himself and if he was feebleminded the protection of the community was of paramount importance and the training of the individual secondary.

Such a situation arose largely from our previous lack of knowledge of the causes of these various mental abnormalities and consequently there was no adequate treatment which could be successfully instituted to restore these people to normal activity. Our fundamental knowledge of these conditions was based largely on speculation and coincidence and the real cause remained a mystery. One of the fundamental errors particularly pertaining to the psychoses has been the rôle given to heredity as a causative factor. So fixed has this become in the minds of the profession, laity and psychiatrists as well, that for years it was considered the principal underlying factor. It was largely through the loose way in which statistics regarding heredity were collected in state hospital records that such an opinion became prevalent. If there was "insanity in the family" the patient was considered as suffering from hereditary taint. This phenomenon occurred in a sufficient number of cases to substantiate the idea that hereditary taint was the principal factor.

We do not want to be misunderstood as we believe that heredity has a definite rôle in the psychoses, but we feel that too much importance was placed in this factor. In the first place the doctrine of heredity is extremely fatalistic, for if a patient is born with the potential element of

* Read at the Annual Meeting of the Medical Society of the State of New York, at Albany, April 19, 1922.

mental disorder then there is little use of trying to prevent a psychosis or to successfully arrest it if it does appear. Hence the attitude was adopted that only by methods of training, education, and environmental advantages could these symptoms be forestalled. But, we have observed many cases where the environment was extremely favorable, where education and training were all that could be desired, and in spite of this a psychosis developed.

From a biological standpoint, heredity means something very definite and one has only to read Conklin's book, "Heredity and Environment," to get the correct idea. It is a well established fact that the mental activities which we designate the mind cannot be considered apart from the brain. In other words we cannot have function without structure, and this being true there can be no abnormal function without a corresponding abnormal structure.

In general medicine we see more and more a tendency to discard "functional" disease for the organic type. Hewlett has recently stated, "It is true that in the last analysis all disturbances of function must be capable of explanation in terms of physical or chemical changes in the body, cells and fluid." This viewpoint is more readily accepted in diseases concerning the body in general than when applied to the mind and brain. Another known scientific fact substantiates the viewpoint that a disordered mind, whether the disorder could be classed as insanity or defectiveness, must have an anatomical basis. Consequently, in dealing with a mental disturbance we must first ascertain what factors are at work which could cause anatomical changes in the brain tissue. This is extremely important if we want to accomplish anything in the treatment of the individual.

INFECTION

If then we have destroyed our belief in the important rôle of heredity and psychogenic factors, what have we to offer in their place as causative factors? Formerly the physical condition of the patient was of minor consideration and many patients were classed as physically normal, which practice we know now was a serious error. We are indebted to modern medical practice for the methods which permit the finding of serious physical disease in apparently otherwise healthy individuals. The work of Billings, Hastings, Rosenow, Barker and Upson of the medical, as well as Thoma and others of the dental profession has established, without any question of doubt, the doctrine of focal or massed infections. These infections were formerly overlooked, not only in the psychotic patient but in patients suffering from various systemic disorders. This doctrine has been the most important contribution of twentieth century medicine,

and the application of the methods evolved to determine the presence of chronic infection has added an entirely new chapter to the treatment and prevention of the psychoses.

That local foci of infection which cause no local symptoms and of which the patient may be ignorant, can cause serious systemic diseases, both by spread of the organisms to other parts of the body and by a dissemination through the blood streams of the toxic products, the result of such infection, is still doubted by many. But we feel that enough work has been done to establish such a doctrine in spite of this skepticism.

Our investigations in the last four years have shown conclusively that the psychotic individual harbors multiple foci of infection which often can be located and eliminated only with the greatest difficulty and persistence on the part of the physician. In order to properly locate and eliminate these multiple foci of infection the psychiatrist has had to call to his assistance the specialists in other branches of medicine. So that today a well equipped clinic for nervous and mental disorders is only adequate in so far as this principle of group diagnosis is carried out. The growth of the idea of a diagnostic survey of every individual, whether suffering from mental disorder or other systemic diseases, has been rapid. One need only to mention the success of the Mayo clinic and of the work of Lewellys Barker at Johns Hopkins, to illustrate the trend of modern medicine. Why then should there be any criticism if the psychotic individual is given the advantage of the application of the principles of modern progressive medicine? In view of the successful application of these principles at the State Hospital at Trenton in the last four years, shall we still adhere to the old ideas expressed at the beginning of this paper; or shall we lay prejudice aside, which limited the treatment of the psychosis to psycho-therapy, or the so-called occupational therapy, and study the individual as a whole and endeavor to discover any pathological condition which might be present.

It is only within the writer's short experience of twenty-one years that the question of the relation of syphilis to paresis was doubted in America. Paresis was considered a disease due to over-work, over-mental strain, because it occurred in brokers, bankers, actors, and others who were supposed to be overworked. It was considered purely a mental disease. First a history of previous syphilis in a large proportion of the bases gave a clue to a better understanding of the causation. Then the studies of the brain cortex by Nissl and Alzheimer revealed the fact that very serious pathological changes had occurred. Finally Moore and Noguchi demonstrated the spirocheta pallida in the brain tissue in cases dying of paresis. Here we have an example where step by step our ideas regarding the causa-

tion of paresis underwent a complete revolution and no one would dispute the fact today that paresis is an organic brain disease due to destruction of the brain tissue by the spirocheta pallida.

The so-called functional psychoses, we believe today to be due to a combination of many factors, but the most constant one is the intracerebral, biochemical, cellular disturbances arising from circulatory toxins originating in chronic foci or infections situated anywhere throughout the body and probably secondary disturbance to the endocrin system. The psychosis then instead of being considered a disease entity should be considered as a *symptom* and often a *terminal symptom* of a long continued masked infection, the toxæmia of which acts directly on the brain. As psychiatrists have for years recognized a toxic infectious psychosis, especially in patients who had an obvious infection, acute in character and easily diagnosed, we have not established a new principle when we speak of the toxic origin of some psychoses. But we have extended the diagnosis to include types such as manic depressive insanity, dementia præcox, paranoid condition, etc., in which the infection is not apparent or easily found upon casual examination. But such infection is only found upon utilizing all the methods of modern diagnosis. So it should not be difficult to adjust our ideas to these views.

If the profession at large can accept this viewpoint, which we feel we have demonstrated beyond a reasonable doubt, then their attitude will be changed from a hopeless, fatalistic one, previously in vogue, to a hopeful one wherein they themselves can not only arrest many cases after a psychosis has developed, but better still by eliminating these foci of infection, easily prevent the occurrence of the psychosis. There can be no question that many of the psychoses can and will be prevented when the result of such infection is properly understood by the profession at large. It is obvious that when the psychosis can be arrested by eliminating chronic foci of infection, then by properly treating such patients long before the psychosis appears the mental disorder can be prevented.

SOURCE OF INFECTION

We have found that the source and type of chronic infection in the psychotic patient is the same found in many of the systemic disorders. We may be pardoned, perhaps, if we claim that our work in the elimination of focal infection has gone further than in most clinics. We have utilized what we consider the best methods that have been developed. Some of them, unfortunately, are not in general use, nevertheless we are of the opinion that time will show all the methods adopted by us are extremely valuable in

ridging the patient of multiple foci of infection, until better methods are devised.

We have come to regard the infection of the teeth as the most constant focus found in our patients. Without exception the functional psychotic patients all have infected teeth. Briefly they may be divided into unerupted and impacted teeth, especially third molars; periapical granuloma; carious teeth with infection; apparently healthy teeth with periodontitis; devitalized teeth with either Richmond or gold shell crowns; extensively filled teeth with evidence of infection; and gingival granuloma in apparently vital teeth.

While the progressive men and leaders of the dental profession are awake to all the types of infection, unfortunately the "rank and file" are not sufficiently acquainted with these many forms. Consequently, the physician who attempts to rid his patient of focal infection must become acquainted with modern dental pathology. In our younger patients, from 16 to 30 years of age, no matter what the psychosis may be diagnosed, we find unerupted and impacted third molars in a large proportion of the cases. And we would unhesitatingly advise, when there are clinical evidences of systemic infection and intoxication present, that these should be removed. We have found that they are always infected and the infection is in some way related to the fact that the tooth is unerupted and impacted. All crowns and fixed bridge work have been condemned by the best men in the dental profession and we voice the same opinion. So in order to rid a patient of focal infection a very thorough job must be done and no suspicious teeth allowed to remain. This does not mean that every patient should have all his or her teeth extracted, in fact in our work at the State Hospital we would not average over five extractions per patient.

Time prevents my going into the question of infected teeth more thoroughly, but I would emphasize the fact that a thorough elimination of focal infection can only be obtained by extraction. All other methods have proven worthless and dangerous to the general health of the individual.

We would like to call attention to the method of removing the infected teeth. In many cases simple extraction is not sufficient, even when the socket is thoroughly curretted. When the alveolar process is severely involved, the Novisky method of surgical removal is absolutely necessary. Failures to get results from removing infected teeth are frequently due to the fact that diseased, infected, necrotic bone is left and absorption continues even after the teeth are extracted.

Chronic infection of the tonsils is equally important, as infected teeth and the mouth cannot be considered free from infection when infected tonsils are not removed. It is a striking fact that

very rarely is a patient admitted to the State Hospital at Trenton whose tonsils have been previously removed, so that over 90 per cent of the patients have to have their tonsils enucleated after admission. That the children of the present generation are having their infected tonsils enucleated, will, we believe, have a definite influence on the elimination of systemic and mental disorders later in life. Whatever may be the result of treating infected tonsils with the X-ray or local therapy, we feel that today enucleation is the only method permissible.

TYPES OF BACTERIA CONCERNED IN CHRONIC INFECTION.

Briefly stated, we have found the various types of streptococci and colon bacilli responsible for chronic infection in our psychotic patients. The streptococcus group composes many strains, as cited below. The colon bacillus group is also made of various strains, differentiated by their cultural reactions in carbohydrate media.

Below is given a table showing the strains of streptococci, classified according to Holman. These sixteen types represent the grouping of 1,122 strains of Holman, and, taken with strains from the literature the total number is 2,463, a sufficient number to come to some conclusion as to their biological types. While some types can be identified under the microscope, only by their cultural reactions can they be accurately differentiated.

HEMOLYTIC STREPTOCOCCI

Type	Mannite	Lactose	Salicin
Infreq.	Plus	Plus	Plus
Hemolyt. i.	"	"	Minus
Pyogenes	Minus	"	Plus
Anginosus	"	"	Minus
Hemolyt. ii.	Plus	Minus	Plus
" iii.	"	"	Minus
Equi	Minus	"	Plus
Subacidus	"	"	Minus

NON-HEMOLYTIC STREPTOCOCCI

Fecalis	Plus	Plus	Plus
Hemolyt. i.	"	"	Minus
Mitis	Minus	"	Plus
Salivarus	"	"	Minus
Non-hemolyt. ii.	Plus	Minus	Plus
" iii.	"	"	Minus
Equinus	Minus	"	Plus
Ignavus	"	"	Minus

We have so far been able to isolate six strains of the hemolytic group; i. e., the infrequenz, pyogenes, anginosus, equi and subacidus, and five strains from the non-hemolytic group; i. e., fecalis, mitis, salivarus, equinus and ignavus. We have found representatives of both these groups in various sources of culture. Occasionally the hemolytic strains are found in the teeth, but more frequently this type is found in the tonsils and gastro-intestinal tract. Nine-tenths of the tonsils harbor hemolytic strains and also the non-

hemolytic strains as well, and it is not unusual to find two or three strains in the culture from the stomach and duodenum, both hemolytic and non-hemolytic types.

Later investigations have shown the "viridans" is a form of the non-hemolytic streptococcus, but not all of the latter can be classed as "viridans." So it is better to substitute the exact type for this term.

It is useless to argue which types may or may not be pathogenic, or which types may be more virulent than others. We have not found that the hemolytic types were more virulent than the other group or that they produced more marked symptoms. In fact, any of these organisms may become so virulent at any time that they cause the death of the patient, although for a long time they may be latent and no marked evidence of their presence shown other than by the fixation tests. We are still of the opinion that the complement fixation tests of the blood for determining the presence of chronic infections are of value as are also the agglutination tests for the same purpose. Further standardization is necessary, however, before they can be used as a routine laboratory test.

DISSEMINATION OF INFECTION.

From the fact that the elimination of infected teeth and tonsils produced marvelous results in some cases and in others no results whatever, it was logical to conclude that the infection had spread to other parts of the body, through either the lymphatic circulation or the blood stream, and preferably by the former. Secondary infection of the stomach and lower intestinal tract could also come from constantly swallowing the bacteria, originating in the mouth, so that we find secondary foci of infection of the stomach, duodenum, small intestine, gall bladder, appendix and colon. The genito-urinary tract is frequently infected, not only by the organism of the streptococcal group but colon bacillus group as well. The source of this infection of the genito-urinary tract is not altogether known.

In the females we find at least 80 per cent of the cases have a chronic infection of the cervix-uteri, and while the body of the uterus is rarely involved we more frequently find infection in the adnexa. In the males a certain percentage of the acute psychoses have infection of the seminal vesicles. The prostate and bladder, as a rule, are not involved.

TREATMENT BY DETOXICATION.

It should be evident from what has been said that all surgical measures utilized are primarily for the elimination of the chronically infected tissue. It has no relation to the surgery practiced some years ago, which was directed towards

correcting malpositions and the removal of ovaries and other organs irrespective of infection.

The removal of all infected teeth and infected tonsils is imperative. Surgical measures have been utilized for removing portions or all of the infected colon. The Sturmdorff method of enucleating an infected cervix has proved very successful. When the uterus and adnexia are involved a complete hysterectomy is necessary, and involvement of the seminal vesicles necessitates excision and drainage.

Chronic gastric infection and infection of the small intestinal tract can only be treated by autogenous vaccines or specific serum. Autogenous vaccines are made in our laboratory from the bacteria isolated from the stomach by the Rehfus method. We have also developed a specific anti-streptococcic and anti-colon bacilli serum made from the organisms isolated in our laboratory. Every patient receives as routine treatment, first the autogenous vaccine and later the specific serum, but always after infected teeth and tonsils have been removed. The serum has proved especially valuable in the operative cases. Its administration before operation upon the colon has reduced the mortality from thirty to twelve per cent. Therefore, if for no other reason, its use is justified.

In our work in the last four years at Trenton we have shown definitely that while heredity, environmental conditions and mental factors play an important rôle in the causes of mental disorders, they may be absent and yet a psychosis will develop. As early as 1906 the writer was convinced from his work with Alzheimer, in Munich, that there were definite cell changes in the psychosis known as dementia præcox. With these facts as a basis the problem in the last fifteen years has been to find the cause for the anatomical changes in the brain.

The glands of internal secretions were intensely studied for over five years and every known method of glandular therapy resorted to, but without benefit to the patients. Finally the problem of infection was taken up following the work of such men as Hastings, Billings, Rosenow and others, and in the last four years, as stated before, we have proved conclusively that the psychosis is due to a combination of factors, the most important of which is intra-cerebral toxemia resulting from chronic infections located in the teeth, tonsils, gastro-intestinal and genito-urinary tracts, and probably other sources which have not yet been brought to light.

As a result of this work we have been able to increase our discharges in the so-called functional group from an average of 3.7 per cent for ten years, to between 80 and 90 per cent in the last four years. This means that formerly a little over one-third of these cases ever left the hospi-

tal, two-thirds remaining as chronic patients. Today more than two-thirds of this group recover and are returned to useful occupations in their environment. Aside from the humanitarian aspect of this question the economic one is also extremely important, and when this fact is generally understood by the laity and profession, it will be the means of saving millions of dollars to the states, now paid in maintenance for these chronic patients. Over one-half of the permanent population of state hospitals can be classed as dementia præcox or chronic deteriorating types with an average life of fifteen years.

PREVENTION.

The most important development of the work at the State Hospital at Trenton has been the establishment of the fact that the so-called functional mental diseases are due to chronic infections. The fact that 1,278 patients have been discharged as recovered in the last four years and that out of that number only 47 have been returned and are in the hospital, which is less than 37 per cent, would substantiate our opinion stated above. Assuming that this is a fact, then the responsibility of the practitioner is indeed great. If it is perfectly logical to assume that these patients clear up, after the development of their mental symptoms, by the removal of chronic foci of infection, proper care on the part of the physicians years before the onset of the mental symptoms would, without question, prevent such developments. Therefore, the problem of prevention comes directly in the sphere of the family physician. This work of elimination of focal infections can be done in any well-regulated general hospital and if the practitioner will realize the importance of our work at Trenton I have no doubt that the incidence of insanity of this type will be materially reduced in the next few years.

CONCLUSIONS.

Are we justified in continuing to classify these groups as functional, or would it not be more correct to place them in the toxic group?

Have the results obtained in the last three years, wherein the discharges in this group have increased from 37 per cent to 75 per cent, substantiated our viewpoint or not?

Have any other methods produced similar results?

Can we continue to ignore chronic infections as a factor in producing the so-called functional psychoses? If the clinical, pathological evidence is not sufficient to establish this fact, what other facts are needed to convince those who are skeptical?

THE PROBLEM CHILD.*

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AFTER fourteen years' experience in the New York State and the New York City Psychopathic services with many and varied types of mental problems presented and the realization of the difficulties encountered in adjusting adults to newer environments and newer mental habits, it is my opinion that the future usefulness of psychiatry lies truly in preventive measures. These preventive measures, in order to have their greatest effect, must be applied early in the life of the individual when he is still learning to face reality and to emancipate himself from his former egocentricity. This means that the problems presented in the conduct disorders of early childhood are not exclusively disciplinary but often entirely psychiatric.

Too often misguided parents will endure constant strife and struggle with one of their offspring and then when the child has reached puberty will bring him to the psychiatrist and expect miracles to be performed. At this period it is frequently too late to do anything as the harm has already been done and it is next to impossible to recast the mental life of the individual after he has been accustomed to solve his problems according to his own methods regardless of the rights of others.

The histories of most of our constant offenders will tell of early juvenile adventures in crime, with finally in youth a graduation into the more serious offenses. It is stated by the legal authorities in New York City that one-third of our serious crimes are committed by youths under twenty-one years of age. This fact is certainly a severe rebuke to our modern system of allowing our boys to solve their own difficulties. They need our help and advice, just as we needed it at their age. Many of the juvenile delinquencies are caused, not by our feeble-minded boys and girls, but by those of superior intelligence. The latter are the "Master Minds," the former the "Dupes and Tools." The more intelligent can successfully evade detection while their less fortunately endowed companions pay the penalty.

In a psychiatric clinic one deals with problems of disordered conduct before they have reached the juvenile courts. If they are not successfully adjusted at this time it means that eventually they will become court cases and as a consequence become more difficult because of having come into contact with the law and

with associates whose influence is baneful. It is in solving these difficulties, such as might arise in any home, that I believe the greatest good can be accomplished by the psychiatrist. The youth and the child of today are the citizens of tomorrow and the way to do away with our criminals is to solve their problems early. It is much too expensive to try to reform criminals after they have formed anti-social tendencies.

The cases cited below came under my care while Chief of the Mental Hygiene Clinic at Bellevue Hospital and illustrate some of the problems with which we had to deal.

CASE No. 1.

E. T., female, 9 years old; United States.

Family History.—Father is alcoholic. Separated from her mother—is divorced. Mother works as a chambermaid in a settlement and is apparently a woman of very good habits. There are two brothers who appear to be normal.

Personal History.—Early life and development normal. Got along fairly well at school until about eighteen months ago since when has done very poor work. Unable to learn; difficulty in concentration. Sensitive to criticism. Gets along all right with other children at play. Makes no complaint. Does not mind her mother very well, but is not extremely difficult to manage. At present is in 2A, but is to be demoted to 1B.

Mental Examination.—Shows that the child is very docile. Co-operates extremely well. All her successes are clear cut and done in very good form. Her Intelligence Quotient is 96%. Mental age is eight years and eight months. Her mental age and Intelligent Quotient did not warrant as much school retardation as her record shows, and examination for special disabilities was recommended.

Physical Examination.—Showed a rather poorly nourished and developed female child with large cervical glands. Examination of the eyes showed combined hyperopia and astigmatism of both eyes. Glasses prescribed. Blood Wassermann negative. Skin dry, also hair. Probably suffering from hypothyroidism. Patient placed on thyroid treatment.

Subsequent Course.—Patient was placed on thyroid treatment. Glasses were obtained for her. The report recently received from the school states that she has improved a great deal and has also been promoted and is at present in 3A.

CASE No. 2.

S. G., male, 9 years old; United States; school-boy.

Family History.—Negative as far as can be obtained from the mother who appears to be ignorant and furthermore does not seem to understand English well.

Personal History.—Early life and development apparently normal as far as can be ascertained. At present in 4B in the public school.

Present Illness.—The patient was referred from the Medical Clinic which he had been attending for the past two months, because of a constant pain in his abdomen which he complained of. Also complained that he could not eat, and that when he walked his heart beat very fast and hurt him. No physical condition was found to account for this trouble, so the boy was referred for mental examination.

* Read at the Annual Meeting of the Medical Society of the State of New York, at Albany, April 19, 1922.

On examination the patient was extremely reticent and evasive. Repeats the above complaints over and over, but is unable to describe any details about them. He appears to be quite apprehensive, especially when his mother was present. When the physician asked him if there wasn't some other trouble with his physical condition which worried him, he denied this emphatically. The patient was then turned over to one of the social service workers who talked with him alone, and after much coaxing, he confided in her the fact that his stepfather had been beating him for seven years, and that he feared to tell anyone of it. When the mother was asked about this, she was very reticent; finally burst into tears and said "Maybe."

Physical Examination.—Was negative, except that the boy was undernourished.

Subsequent Course and Treatment.—The patient was placed on general tonic treatment and told to report back in a week. The Social Service Department was asked to investigate the home conditions, with a view to bringing the stepfather to terms, but the address given by the mother was evidently fictitious, as the workers have never been able to find any trace of the family, though repeated attempts have been made.

CASE No. 3.

M. J. B., female, 7 years and 11 months; United States.

Family History.—Father insane for two and one-half years, Dementia Praecox Paranoid Form.

Father's mother also case of Dementia Praecox.

Mother apparently normal but a very nervous woman. She admits that the child was an unwelcome one because the husband was unfaithful to her, and also because of the grandmother's insanity. Mother admits that she is very nervous and high-strung, very restless; feels neither married nor single. Is sleepless and complained of constant headaches.

Personal History.—Early life was uneventful. Healthy as a child, except the usual diseases of childhood. The child has always been babied and made a fuss over, because of being bright. Was petted more than the other girl who is 13 years old and apparently normal. The child is not destructive but is boyish. She has been attending school for four years and is in the fourth grade at the present time. The chief difficulty with the child now is that she wants her own way. She is obstinate and self-willed, quick-tempered. Plays with the other children but wants to be the boss.

On examination, the child is very bright and co-operative. Says that she likes it home; of course, when she is naughty her mother gives her a whipping; states that she had a bad temper when naughty, and that she is restless at times.

Mental Examination.—Showed a child of normal intelligence.

Physical Examination showed a well-nourished and developed child. Negative except for enlarged tonsils and adenoids. Treatment was prescribed for the mother for her nervousness, and the mother was asked to bring the child back in a few months.

The following letter has been received from the mother:

"Muriel is lots better than she was and I believe it is due to the fact that I took your advice and had her adenoids and tonsils out the latter part of August. She has improved greatly in her demeanor and studies. As for myself, have not been feeling so well, seem to take cold so easily and am still very nervous. Last September I took a trip to Canada and felt wonderful when I returned, but that buoyant feeling didn't last long."

CASE No. 4.

K. M., United States, 14 years old, white, in N. Y. one year.

Family History.—Father has a violent temper and is impatient with the boy. Relations between this boy and his father have become so strained that the father could not tolerate him. Father is a travelling salesman, and is often away for several weeks at a time. Mother is decidedly peculiar; very talkative, obstinate, and always wishes to impress her views on everyone else. The patient is an only child. The mother has always been very irritable and has attacks of uncontrollable laughter just as the boy now has. Has violent outbreaks of temper.

Personal History.—Very delicate infant because of gastritis. Never attended school until ten years old and now in the eighth grade. Very apt to over-indulge in sweets. When crossed in any way becomes very angry and has a nervous spell.

The mother and the boy have lived in a furnished room since coming to New York a year ago. She brings the boy to the clinic with the complaint that he has stolen money on several occasions and quite recently has stolen twenty dollars from a neighbor. The mother never allowed him to play with other boys or indulge in any normal activities.

On Examination.—The boy admits taking the money, and said that he used it for amusement, as his mother never took him anywhere, and never allowed him to go to any amusement. He realized that it was wrong to take the money, yet took it because he wanted to use it for the above purpose. Was unable to give any explanation for his conduct at times, except that it was to "get his own way."

Psychological Examination.—Showed a mental age of 13 years and 6 months and an Intelligence Quotient of 95%. By the rating of the test alone, the patient was classed as of normal intelligence. Basic year was ten, and group limit 16. Attention and effort excellent.

The child was tried at home for a while, but after a few weeks his mother reported that he was unmanageable because of his temper, and also spent the greater part of the time during the day away from home. The boy explained that he spent his time away from home swimming, or at the Palisade Amusement Park.

Physical Examination.—The boy was rather under-sized. General physical and neurological examination, including the Wassermann test, was negative. He was admitted to the children's psychopathic service.

During his residence in the hospital he was quiet and well-behaved. He showed an inclination to strike the older boys who aggravated him, but was kind and generous with the smaller boys. He showed no signs of violent temper, and was playing ball most of the time. Ate and slept well. Showed no inclination to steal. Expressed a desire to remain in the hospital if it would cure his temper and stealing.

The child remained under observation for three weeks, when the mother was advised to place him in a private school, because it was thought that her nervous condition was in a large measure responsible for her boy's dereliction, and the amusement denied him in a normal way was secured through his delinquencies. From last reports the boy has been getting along fairly well at the private school.

CASE No. 5.

R. L., age 14 years, white, female; United States.

Family History.—The mother is dead. Father married after the mother's death four years ago, and his present whereabouts is unknown. Since that time she has been living with an aunt who is single and has to work.

Personal History.—Is uneventful, as far as known. She has had a slight albuminuria at times, but this is very little. Has always been a very quiet and seclusive child. Never fond of the company of other children. Prefers to sit and sew by herself. At present is in 6A in public school and does not seem to get along well at school. Menstruation began at 14. No difficulty.

Present Illness.—The aunt brings the patient to the clinic with the statement that she is unable to control the child, that she has been very disobedient during the time she has been with the aunt. When told to go out for a walk she would go to the movies instead. Refused to work, but would read a book all day long if allowed. Does not seem to care what becomes of her. Seems depressed and worried but won't say why. Talks to herself a great deal and seems suspicious.

On examination the patient seems definitely depressed. Is very reticent in discussing her trouble. Her whole reaction appears due to the fact that she is lonesome and no one wants her. She said: "I could not agree with my aunt. I was always answering her back. She was good to me. She was always telephoning to a lady at the Bureau of Charities whenever I answered her back. She used to nag about different things. She used to say I was just like my father. He always liked me until my stepmother came. She did not like me. I could not get along with her. She never kept the house clean. The least little thing I'd do she would tell my father and he used to hit me. She was only 23 years old. I lived with my aunt two months. Before that I worked for a lady. I did not like her, and my father took me to another lady, and then he went away." Says that she has never felt the same since her mother died. Has a married sister who refused to take her. Her mother was very good to her. She would like to take a course in typewriting.

Psychological Examination.—Showed a mental age of 14 years and an Intelligence Quotient of 89%. By the rating of the test the patient was classed as normal intellectually, although she was not very quick in her mental processes. She seems nervous, answers in a hesitant tremulous tone and gives the impression of being under nervous tension. She could not get along with her aunt and cries at the idea of going back to her. She stated that she had been to five different schools and that she repeated a grade whenever a change was made.

Physical Examination.—Showed a well-nourished, well-developed girl for her age, essentially negative. Blood Wassermann was also negative.

She was admitted to the psychopathic service for observation, and while at first she seemed depressed, later she was more lively and agreeable. She was placed in a home, and according to report has been getting along well since.

The aunt subsequently admitted that she was very anxious to be married about the time she brought the child to the clinic, and for that reason was not very anxious to have the child at home as her husband might not like it. Furthermore, the aunt was the father's sister, and it was only natural that, because of her unpleasant associations with her father, particularly since the death of her mother and his re-marriage, this dislike should extend to her aunt.

CASE No. 6.

P. D., male, 7 years of age, colored; United States.

Family History.—Unknown, as parents are thought to be dead, and the guardian who accompanied the child to the clinic states that he knows nothing about them, except that the child was left as a baby by his mother, with a colored woman who had a permit to care for children; and that ten dollars was paid for the first month, but nothing thereafter. Nothing heard from the mother since. The woman who originally took care of the child died two years ago, leaving the child with her married son who brings the patient to the clinic, saying that the child is feeble-minded, and asks to have him placed in an institution.

Personal History.—The early history of the child is uneventful, as far as can be ascertained. At present he is in 1A in public school, and apparently gets along very well.

On examination the child is cowed and apprehensive. States that his parents (foster-parents) beat him at times, especially his mother, although he steadily maintains that he loves both of them. When asked why he was brought here says that his father and mother claim that when they speak to him he does not answer them; but he says that he does answer them.

Psychological Tests.—Revealed the mental age of six years and eight months with an Intelligence Quotient of about 95%. By the rating of the tests, the patient appears to be of normal intelligence. The basic year was six, and the group limit seven. Showed some peculiarities of speech when answering difficult questions, but this disappeared in spontaneous conversation. He was much interested in the test matter and manifested the play tendency of the normal child, with interest in the environment, etc.

Physical Examination.—Showed a fairly well nourished but physically undersized boy of seven. General physical and neurological examination negative.

The foster-father was then informed that the child was not feeble-minded, and he acknowledged that his sole object in bringing the boy to the clinic had been to get rid of him, as he and his wife were anxious to go out west, and did not want the annoyance of taking the child with them.

A letter was written to Mr. Bauer of the Department of Public Welfare giving the results of the examination and stating the real object that the foster-father had in bringing him.

CASE No. 7.

E. O., male, 14 years old; United States.

Family History.—Is negative. Patient is the second of six children. One of his older brothers is in his first year in law school at Fordham University. The father and mother are plain, home-like, stable individuals, who own their own home and have always taken excellent care of the children.

Personal History.—Up to the development of the present illness, the boy was a model in every respect. He was well-behaved, religious, and had served as an altar boy for several years. He was well-liked by the sisters who taught him and by the people in the neighborhood. He had always done well in school, and has always been on the honor roll. He was in the graduating class when he left, in June, 1921.

Present Illness.—Is difficult to fix, but about June, 1920, after a tonsillectomy, he developed a short, hacking cough. Later began to become fussy, cranky, used bad language, developed carelessness of person, was very quarrelsome with his brothers and sisters, and when the mother interfered, he would attempt to strike her. Later

he developed pains in the temporal regions, and following this great difficulty in breathing with attacks when he would breathe very loudly and with extreme difficulty.

The boy became so difficult to manage that he was taken to the Observation Ward of Kings County Hospital, where he was irritable, noisy, threatening homicide and suicide, and expressed a special hostility against his mother. A diagnosis of hysteria was made there.

On November 26, 1921, he was admitted to the New York Neurological Institute, where the same general reaction as shown at the Kings County Observation Ward prevailed.

Physical Examination.—Including X-ray of the skull, Wassermann's of the blood and spinal fluid, were entirely negative.

Psychological Examination.—Was rather unsatisfactory because of his open resistance, with difficulty in concentration, great emotional instability and much irritability, so that the mental age of 12 years and 11 months, and an I. Q. of 88% is not considered an adequate measurement of his mentality.

While at the Neurological Institute he told a highly fanciful tale of being connected with a gang which had held up and robbed a number of people. The patient showed little change in his conduct, and finally escaped from the hospital on December 1, 1921. He was returned by his father and later transferred to the psychopathic service of Bellevue Hospital.

Here his general reaction remained the same as in the other hospitals.

The father was advised that the only thing possible to do was to have the patient committed to a state hospital because of the difficulty of keeping him in any other place, but he was unwilling to do this and took him home after a week. He was then brought to my office about the middle of December, and on examination showed the same general reaction as previously noted, called his father all sorts of vile names, accused him of mistreating his mother, and of not having supported the family sufficiently.

He was seen on three occasions altogether, but only on the last occasion was I able to elicit any information which would tend to explain his abnormal conduct. He then voluntarily told me that in the summer of 1920, a young man of eighteen years said to him one day, "Your mother is getting stout, ain't she?" "She's got a baby in her stomach." The patient indignantly denied this, and said: "The stork brings babies; babies don't come that way." The older boy then proceeded to elucidate the mysteries of birth, giving him the impression that the child developed in the gastro-intestinal tract. He then began to manifest interest in his mother's appearance, and after the baby was born, he states that he lost interest in everything else, that he couldn't keep away from the baby, and would spend long periods deep in thought gazing at his new sister. Prior to this, but becoming intensified he developed a marked disgust and hatred toward his parents. Toward his father, because he mistreated his mother, and toward his mother for submitting to what he regarded as mistreatment. His greatest ambition in life had been to be a priest, and prior to the onset of his illness his favorite play consisted in playing at saying Mass as he had seen the priest do it. His favorite saints were St. Joseph and St. Mary, and now the thoughts which had entered his mind about his parents began to concern themselves with St. Joseph and the Virgin, and the birth of Christ. He also began to wonder what the relations between priests and sisters were, and as the result of all this he lost his interest in his religion, no longer prayed, but indulged in profanity.

His whole personality changed, and his conduct became as above noted.

His mother, when interviewed subsequently, said that his illness began shortly after the birth of her last child in 1920, and that she had noticed the unusual interest which he had taken in the child, but had never questioned him about it.

Subsequent Course and Treatment.—For a while, the boy showed wonderful improvement. He even went to the school and apologized to one of the teachers. Also was able to sleep at night. However, one of his excited periods returned, and the father, unable to restrain himself when the boy called him a vile name, struck him, and the boy developed such a marked excitement that he had to be removed to the Kings County Observation Ward. Feeling that the home surroundings at this time were aggravating rather than helping the condition, and also realizing that more discipline than could be obtained at home was needed, I recommended that the boy be allowed to go to one of the state hospitals where he now is.

CASE NO. 8.

M. E., age 16, female; United States.

Family History.—Father died of cancer. Mother is a hard-working woman who goes out by the day. Patient has one brother apparently normal.

Personal History.—Early life and development normal. Graduated from public school at 13½ years. Also attended a business college for eight months, but did not care for the business course, so learned to operate an Elliot-Fisher Billing Machine. She secured a position at \$18 per week, but has changed her places of employment constantly. She was brought to the clinic on the suggestion of a probation officer to whom the mother had complained about the girl's conduct, which prior to this time had been most exemplary.

The girl had been out of work for about five weeks, but had told the mother that she was working, but when asked for the money at the end of that time, was unable to produce anything. Shortly after this she left home taking a suit case with her, and picked up with a young man about 18 years whom she had known only a few days. They rode around in the trains all night, and the next morning he secured a room for her. The next night he visited her and stayed all night. She then went to a girl friend's house who sent for the mother. Mother took her home, but she had been home only a few days when she again disappeared over night. The mother gave a history of the girl always having been quiet, and had very few friends, and was never fond of company. During the past six months she had become less talkative, less frank with her mother, and was more seclusive. Following the occurrence above related with a young man, she showed no emotional reaction; quite indifferent about the affair; in fact often laughed about it as if she were highly amused.

On examination at the clinic she was quite indifferent; told the story as related above, but was quite unconcerned about the consequence and showed no shame or embarrassment whatever.

General physical examination was negative.

Psychological examination was very unsatisfactory because of poor co-operation.

Because of the change in disposition, the shut-in make-up of the individual, and the impulsive way in which she left home, without any subsequent emotional reaction, she gave one the impression that this was a case of Dementia Praecox, and the mother was advised to place the girl under observation. A later report, however, shows that this has not been done, although it has been suggested by the probation officer that the girl go to a home for a time.

COMMENT

Case No. 1 shows a child whose handicap was exclusively a physical one and with the proper adjustment of this the child was able to resume her proper place in school.

Case No. 2 illustrates a child who through fear of a step-father and his punishment took refuge in complaints of a physical nature in order to secure sympathy which was denied him at home. If conditions go on in this child's life as they are at present it is fair to assume that he will adopt delinquency as an escape and a protest against unfair parental authority.

Case No. 3 illustrates a problem in which the constant fear and apprehension of the mother toward the insane father was the real difficulty and the constant repression which she manifested toward the child was really an expression of her hatred for her husband.

Case No. 4 illustrates the problem in an only child of neurotic parents who lived in an unhealthy environment without normal means of expressing his natural childhood tendencies.

Case No. 5 is one in which the child developed an antagonism toward her young step-mother who usurped the place which the child had learned to regard as hers in her father's affections. She also developed a hatred toward her father which she later transferred to her sister and developed a reaction which at first appeared to be psychotic.

Case No. 6 illustrates an attempt to get rid of an unwelcome guest.

Case No. 7 demonstrates the reaction which took place when a boy of fourteen years was suddenly and in an unwholesome way confronted with the sex problem. It illustrates the extent to which such a reaction may go.

Case No. 8 shows how a case of dementia praecox of the simple type may throw off all restraining influences with disastrous results which might have been prevented if brought to a psychiatric clinic sooner.

PREVENTION

It is believed that many problems of childhood can be helped by a concerted effort on the part of the parents, physicians, the churches, the schools and psychiatric clinics. It is most essential that children have a proper religious training in order to instill in them a wholesome respect for the laws of God and Man. Men of affairs, men of influence in the community should show that they are not above religious influence by taking an active interest in churches and Sunday schools. If the boy and girl feel that father and mother can get along without religion they cannot see why it is necessary for their own welfare.

Such a wonderful organization as the Rotary Club, composed of business and professional men, is paying particular attention to boys' work movements and endorse heartily the Boy Scouts of America, realizing that healthy sublimations of this sort make for better citizens in later life. An organization like the Boy Scouts directs the gang instinct which is a normal boyhood reaction into healthy forms of activities, thus neutralizing the unhealthy sublimation which makes the gangster and the gunman, as the result of whom lawlessness is today so rampant in our large cities.

Similar organizations among the girls make for normal women in later life and prevent prostitution and illegitimate pregnancies.

The mental and physical examination of all first offenders in order to discover just what caused this first misstep in their lives would in my opinion prevent the development of many chronic offenders.

The grading by group and individual psychological tests of all children on their entrance into our primary schools would solve many of the problems which arise there. In this way superior children will be kept sufficiently occupied to prevent their getting into mischief and the feeble-minded and dull children will receive the attention which they sadly need and which is impossible under the present school system.

It is realized that all this is an ambitious program, but it is one which, if properly carried out, will prevent many of our modern problems in criminology and amply repay us from an economic standpoint.

REMARKABLE FREEDOM FROM LOCAL RECURRENCE FOLLOWING CHEMICAL REMOVAL OF ADVANCED CANCEROUS BREAST.*

By C. W. STROBELL, M.D.,
NEW YORK CITY.

LOCAL recurrence, following removal of cancerous breast, is generally conceded to be due to one, or all, of three causes, namely:

1. Manipulative or mechanical dissemination of cancer cells, along lymph or venous channels.
2. Reinfection of fresh wounds, by direct distribution and reimplantation of disturbed cancer cells.
3. Failure to remove all cancer cells.

Local recurrence, following removal of cancerous breast, by standard methods of excision, is the great objection to continued application of that method. Much as we dislike to admit it, it is a fact, which we must face. It does no good

* Read at the Annual Meeting of the Sixth District Branch of the Medical Society of the State of New York, at Elmira, October 3, 1922.

to bury our head in the sand. It is much better to meet progress half way, casting aside prejudice, if any there be, and examine this new-old thing that is accomplishing such encouraging results in these otherwise hopeless conditions.

After theory and principles technique is the thing with which to prove the truth of the one and practicability of the other. Therefore, to have developed a successful, non-recurrent technique on a discredited foundation, to have brought twentieth century science effectively to bear upon a neglected therapeutic resource that "got stuck in the mud" a hundred years ago, was a work well worth while.

Twenty-five years of intensive application to the development of the chemical method has impressed upon me the fact that there are in that method fundamentally important *elements of control* almost wholly lacking in the strictly surgical procedure. It seems to "get" the cells theoretically responsible for recurrence, probably because more free from the possibility of manipulative dissemination, direct distribution, and reimplantation of disturbed cancer cells.

This twenty-five years of observation has convinced me that early external cancers uncomplicated by adenopathies, removed chemically while yet the "Microscopic Growing Edge" of Handley, may be overtaken, can thus be "cured" in the very best sense of that term—cured so that they will stay cured. In common with physicians everywhere, probably, I have in the course of forty years' practice removed hundreds of so-called "skin cancers," small affairs of course, including rodent ulcer, prickle, and squamous celled epotheliomata, keratoid growths, pigmented warts, etc., *that had not yet penetrated the deep fascia*, with caustic potash, and they have not returned. From these comparatively small and superficial growths it seemed but a matter of development of an enlarged technique to bring larger masses under like control.

It has further taught me that palliative chemical removal of far advanced inoperable-for-the-knife, cancer of breast, by caustic potash and chloride of zinc is "ideal," in that it removes external and visible signs of the disease, and restores the patient to wholesomeness, with, at least, an eighty per cent chance of local non-recurrence. Moreover, it does this painfully and safely.

My appeal is to the surgeon generally, to make himself familiar with this operation and to apply it. The technique is practically perfected in all essentials. A word of caution seems necessary, however, and that is to begin with an early case, or at least, an easy advanced condition, thus gradually developing a dependable judgment, as to the depth or extent of the chemical "drive," so as not to destroy bony structures, nor to invade the pleural cavity. Avoidance of such accidents

is simple enough, once the technique is acquired. A hasty plunge into this work without preparation would be to court disaster and to "set back the clock."

This chemical surgery consists in the radical, more or less rapid, destruction and removal of malign animal tissues, by means of caustic substances, the principal agents thus employed being caustic potash and chloride of zinc.

The first of these agents, caustic potash (potassic hydroxide), is a rapidly dehydrating deliquescent caustic. It is no respecter of animal tissues, destroying all with which it comes in contact. It is considerably slower than cold steel, but very much more efficient in eradicating the disease. In my breast operations, caustic potash is employed to denude rapidly the mammary gland of tegumental and fascial tissue layers, and to remove nipple structures. It is also employed to remove axillary metastatic nodes and lymphoid tissues, when these complicate the case. Such denudation of the gland and clearance of the axillary space is accomplished under complete morphine-hyoscine narcosis, and occupies the space of an hour, approximately. Super action of caustic potash is almost instantly checked by means of water, thus assuring accuracy and scientific control. This constitutes the first stage of the operation, or "*stage of denudation*." Thereafter, caustic potash is not used.

The other chemical substance employed in this work is zinc chloride. It is used in the second stage of the operation, or "*stage of gross removal*," wherein all breast and tumor tissues, down to the final plaque, are removed.

Chloride of zinc is a dehydrating, destructive caustic, or escharotic, with which one can work with safety, deliberation and accuracy.

Chloride of zinc has no selective action on animal tissues, attacking all alike; adipose, osseous, neural, fascial and cartilaginous structures, however, and notably walls of blood vessels, are the more resistant. Chloride of zinc seeps into animal tissues, with which it is placed in contact, like rain into the soil. In its progress into the tissues it seals blood and lymph vessels by thrombosis, thereby interposing a constantly advancing barrier to the escape and distribution of loose cancer cells. It "Pussyfoots" so gently, so insidiously, that there is no disturbance of anatomical relations. Its effects, as regards local eradication of cancer cells—*which constitutes The problem*—are deeper than those following the knife, by reason of a characteristic reaction, incident to the process.

Under technical control, necrosis of tissues by zinc chloride is gradual and painless. The tissues acted upon undergo discoloration as devitalization proceeds, becoming at first pearly white, then shading into dark grays and blacks. The consistency of the devitalized tissues varies some-

what with the technique from that of green tanned hides to soft and hard sole leathers. Devitalization may extend to a depth of from one to two and a half centimetres as the result of a single application, varying with the plan of the operator.

Such devitalized tissues may be pared away from day to day following reapplications of zinc, until the projecting breast mass is reduced to the general level. The plaque of tissue upon which the final zinc application is made is not pared away, but is left to natural processes of removal. Sphacelation of the zinc-destroyed residue is accompanied and facilitated by an intense inflammatory reaction, which sweeps, erysipelas like, through the suspected adjacent tissues, forms a line of demarcation, sloughs off the final plaque, and by means of an abundant leucocytosis proceeds to clean up the field of battle.

Pain, as a result of the application of zinc chloride, is absent, provided the agent is strictly confined to the area covered by the zinc dressings. This important function devolves upon the nurse, who can readily anticipate such an accident, by following directions implicitly. Zinc saturated serous fluids, draining "out-from-under" the dressings, are to be intercepted by moist, almost dry, ropes of absorbent cotton, laid along the axillary border of the area under treatment. Accidental contact of zinc chloride with the skin in this way causes a burning sensation, which the application of water can instantly wash away, thus again demonstrating effectual scientific control.

Eventually, and upon a finely granulating surface, skin grafting after the method of Thiersch, is done, facilitating closure of the wound, and avoidance of cicatrization. Up to the present I have completed sixty-one such chemical operations upon inoperable cancer of breast.

In 1921, at the annual convention of the New York State Medical Society, held in Brooklyn, I read a report of the outcome of my first forty cases. This report appeared later in the official journal of the Society. These forty cases were all well beyond the reach of the knife, yet under chemical removal showed remarkable results. I feel confident that a critical study of that report will lead to the conviction that the problem of local recurrence in cancer is solvable by the chemical method.

A resumé of some of the more important results shows that:

Eighty per cent of the cases are of record in research and other institutions.

Operative mortality was nil.

Operative shock or hemorrhage was not observed.

Clinical results show an average of two years and three months of comfortable existence, with eight of the series still living at the time of the

report. Two of these have recently died. Six of the cases are alive, in good health, and without recurrence. Of these, three have passed the seven-year mark; a fourth, five and a half years; the fifth, four years and seven months, and the sixth, four years and six months.

The fact must not be lost sight of that these were all surgical derelicts.

In seventy-five per cent of the cases, there was not the slightest sign of local recurrence at the time of death, while in the remaining twenty-five per cent, evidences of local recurrence were more or less doubtful, and in no instance contributed to the immediate cause of death.

Internal metastasis was present, in practically all cases, at the time of operation, as established by the presence of axillary, clavicular, and mediastinal nodes.

CONCLUSIONS.

1. If the theory of local origin of the disease be true, then, judged by these results, cancer of breast without axillary involvement, should be permanently curable, by early radical chemical removal.

2. The earlier the chemical operation, the more simple, expeditious, and effective it would be, as at the early stages of the disease, the microscopic "growing edge" of Handley can the more surely be overtaken, and all cancer cells destroyed.

3. Applied to advanced, broken-down conditions of almost every description, the method is little short of a Godsend; being superior in results to every means hitherto employed, both as regards palliation, and freedom from recurrence.

Deaths

BALDWIN, LEMUEL GRANT, Brooklyn; Long Island College Hospital, 1886; Fellow American Medical Association; American College of Surgeons; Member State Society; Gynecologist St. Peter's and St. Giles Hospitals. Died December 31, 1922.

BARNETT, CORNELIUS A., Potsdam; Bellevue Medical College, 1890; Member State Society. Died November 13, 1922.

DANZI, EMANUEL, New York City; Naples, 1897; Member State Society. Died November 17, 1922.

DAVIS, EUGENE WEBSTER, New York City; New York University, 1884; Fellow American Medical Association; Member State Society. Died December 1, 1922.

PATTISON, GEORGE WRIGHT, Buffalo; Buffalo Medical College, 1869; Member State Society. Died November 27, 1922.

SOUTHWORTH, JULIUS BARKER, Stuyvesant; University of Vermont, 1882; Member State Society. Died November 18, 1922.

STONE, FREDERICK DARWIN, Mexico; Syracuse Medical College, 1903; Fellow American Medical Association; Member State Society. Died November 17, 1922.

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1923

Stock-taking, and reviewing, and reaffirmation of broken resolves, and studying futures, are so seasonal at this moment, that we are unresistingly responding to an urge to very briefly remind the Fellows of the State Society that they are valued units of the largest and strongest State Medical organization; that the Society has had its best year, in gain of membership, and finance, and in harmonious effort; that the President, Dr. Booth, has functioned so actively that every section of the State has been visited by his graceful presence, his willing and attentive ear, and his serious effort to more closely unite every element into a powerful potentiality for material and altruistic accomplishment; that the Secretary, Dr. Hunt, has traveled widely, carrying a stimulating message and earnestly endeavoring to learn the essence of every local sentiment affecting the organization; that the indefatigable Chairman of the Legislative Committee has labored without ceasing during legislative sessions and during recesses, through every month of the year, with voice and pen, to bring home to every member the personal consciousness of his own importance, politically, to our society, and to the public he locally represents as leader of thought and sentiment; that he has made history by, for the first time, assembling the Legislative Chairmen of the County Societies and gaining their closer co-operation through personal touch and exchange of ideas; that the Chairmen of the other committees have worked harder and more effectively than ever before; that the Counsel has given the Society a very large amount of most valuable work quite outside the technical boundaries of his office; that in various parts of the State there has been increased interest in interrelation of members and in public questions through the establishment, notably in New York and Suffolk Counties, of regular local publications; that in several counties, notably in Queens, and Onondaga, the elected representatives of the people in County, Assembly, State Senate, Congress, and United States Senate, have accepted the invitation of the County organization and have satisfactorily and warmly reacted to the arguments of the physicians who presented important subjects affecting public health; and that the people have elected a Physician to the United States Senate who, because of his wide experience in public health administration, because of his intensive study of the problems affecting the spread of infections and the protection of the greatest city in the world against the admission of disease from abroad, and because he believes that very important steps in our quarantine should be taken at the foreign ports of embarkation, promises most valuable service to the physicians of our country.

In prospect are battles to be more hotly fought than ever by the financially well endowed sub-standard cults and pathies, whose sinews of war far exceed those a conservative group of sixteen thousand physicians in our State are willing to employ, not only in defense of themselves and the principles they cherish, but of an easily influenced public for whom they are morally responsible.

Six thousand of these physicians are not members of the State Society. January is a very good time to drive after them and this should be a New Year's effort.

The JOURNAL views the prospect of weekly publication with great interest but with hope only through the greater interest of every member who must be willing to pay for it. We believe that it would be worth while and that soon after it became an established fact, its increased circulation would, through increased advertising, reduce its cost and that it would be a very valuable influence far beyond our local borders.

Every member should harness himself to the load of Public Health and Education, of Economics, and of Legislation and pull strongly with the chairmen of the committees in charge of these vital questions with the hope of making real progress in 1923.

The JOURNAL will continue to publish papers presented at the Annual Meeting of the State Society, other scientific articles which have value, reported news of interest to physicians, any "non-libellous" letters from physicians, "prunes" if you like them, and possibly other excursions from the beaten path, if agreeable to our readers, to whom the JOURNAL extends congratulations upon renewed opportunity, and best wishes for a very happy and prosperous New Year.

N. B. V. E.

EXPLOITATION OF MEDICAL AUTHORS.

It is the custom to refer tolerantly to physicians as "easy marks." They are often considered by superficial persons as one-sided people with no business capacity and no innate possibility of acquiring it. These beliefs are not founded on fact; for physicians with trained minds furnish fully as many successful administrators and executives in any field in which their efforts are put forth as other citizens furnish, after equivalent training. Physicians are found as the efficient heads of commercial enterprises and banking institutions, as chiefs of civil bureaus, as presidents of universities and as superintendents of the business and administrative part of many a large hospital.

And so it is not owing to blindness to business

methods that physicians give the products of brain and pen, almost indiscriminately, to medical publications, receiving as recompense only a few reprints which could have been bought in each instance for ten or fifteen dollars.

In lay periodicals, every little bit of published fiction, every labored joke—squeezed from a tortured brain or revamped from Plutarch—has its assigned value, and the author—or adapter—receives his pay therefor. But the physician, more intent on an audience than upon remuneration, perhaps unconsciously pursuing the idea of service, that imperishable ideal of the profession, contributes freely and without pecuniary reward very valuable information, critical discussion or research description and results.

In too many instances these contributions are made to medical journals owned and operated by laymen who by utilizing these gratuitous articles secure a large circulation and secondarily reap a large profit from advertisers. Without the articles contributed gratuitously there would be no periodical; and yet the contributors get nothing, and the lay publisher calmly secures copyrights and thereby future as well as present ownership of what he has been at no pains or expense to acquire.

The physician is therefore a literary "easy mark," thoughtlessly, and because of a custom that has grown out of the pressure of medical practice, which generations ago became too engrossing, forcing medical authors to place the burden of publishing upon other shoulders.

The time is ripe for a complete revolution. The hour has arrived at which authors of medical articles should confine the publication of their work to periodicals owned and operated by their own medical societies or organizations, such as the *New York State Journal of Medicine*, the *Illinois Medical Journal*, and *The Journal of the American Medical Association*, and not to journals owned by publishing houses, advertising companies, or single individuals, who pay nothing for contributed articles. From time to time some of the three latter classes issue flattering letters, praising authors and soliciting gratuitous contributions of medical papers from more or less well-known physicians. These instances of passing of the medico-literary mendicant that should be met, in all cases, by a very blunt inquiry as to the amount per hundred words to be paid by the publisher.

A prompt, fearless, firm and united stand will strengthen all our own medical journals very markedly, and secure proper consideration and pecuniary rewards for medical authors.

A. W. F.

THE WORKMEN'S COMPENSATION LAW.

We are publishing in this issue the report of the Committee on Medical Questions as we promised in November—because we believe that this very important matter should be very carefully reviewed by all physicians, a very large number of whom, whether in sympathy or not with the law in principle, are dissatisfied with its administration.

We recommend thoughtful study of the "points of controversy" and "conclusions" as they appear in detail. N. B. V. E.

WHO HAS KNOWN HEIGHTS.

By MARY BRENT WHITESIDE.

Who has known heights and depths, shall not again

Know peace—not as the calm heart knows
Low, ivied walls; a garden close;
The old enchantment of a rose.

And though he tread the humble ways of men,
He shall not speak the common tongue again.

Who has known heights, shall bear forevermore
An incommunicable thing

That hurts his heart, as if a wing
Beat at the portal, challenging;

And yet—lured by the gleam his vision wore—
Who once has trodden stars seeks peace no more.

—*Harpers.*

AMERICAN MEDICAL ASSOCIATION.

EASTERN DISTRICT—Official Tour to National Convention,
San Francisco, California.

The American Medical Association Convention will be held at San Francisco, Cal., June 25-29, 1923. The sub-committee appointed by the Secretaries of the Medical Societies of the Eastern States have arranged a twenty-five day tour to San Francisco and return, stopping at interesting and important points. All details of the trip will be taken care of, and all arrangements made by an experienced tourist representative, who will accompany the party and take entire charge of the tour.

In order to make this tour a success, and to have a special train with all conveniences, including diners, special Pullmans, baggage car, etc., it will be necessary to have at least 125 members subscribe to the tour.

The State Medical Societies of the Eastern States and of some of the Middle States have appointed the following sub-committee to arrange for the tour: Dr. E. Livingston Hunt, Chairman, Dr. Wilbur Ward and Dr. Malcolm C. Rose.

The Committee extend to all who contemplate attending the Convention a cordial invitation to join the tour, the details of which will be published in the next issue.

E. LIVINGSTON HUNT, M.D., *Secretary,*
Medical Society of the State of New York,
17 West 43d St., New York City.

Correspondence

The Council at a meeting held in Albany, April 20, 1922, moved, seconded and carried

That the Journal be not used in any way suppress any expression of opinion; and that its correspondence columns be open for all proper communications; and that "proper" communications will be deemed those which are not slanderous or libelous in their nature.

December 23, 1922.

To the Editor of the

NEW YORK STATE JOURNAL OF MEDICINE:

DEAR SIR: I am often asked to explain how it is possible that the chiropractors have come to have such a hold on the public. I have had great difficulty in answering this question to the satisfaction of myself or anyone else, perhaps because it raises so many other questions.

(1) Why do so many men and women take up chiropractic? I think the answer is that chiropractic is a very profitable calling within the reach of many who would be unsuccessful in any other undertaking. The announcement of many chiropractic schools says in substance that no matter what one's station, preparation, or age or how little one has been able to earn in their former work as maid or bartender, an honorable and lucrative profession with a title of doctor is within easy and quick reach. Furthermore, the profit in conducting private schools is so great that these schools are spending enormous sums of money to advertise their wares to all prospective students. Thus is assured the first element of success of a new cult, an abundant supply of promoters.

(2) But why does the public turn to chiropractic? I think the answer to this question is that as far as health is concerned the public is always looking for the pot of gold, and since the public is not being promised impossible things by the medical profession, it is ready to be deceived and exploited by the chiropractors.

(3) But if chiropractors are wrong, unprincipled, incompetent and dangerous, why does not the medical profession assume the duty and privilege of warning, teaching and protecting the public, thus putting a stop to the chiropractic heresy?

I believe that the young men and the general practitioners feel the sting of the competition with quacks and are unanimously opposed to these cults, but what is the attitude of the leaders in the medical profession? If we attend a medical meeting where chiropractic is under discussion some very prominent consultant gets on his feet and makes all sorts of absurd and silly excuses about it not being our duty as physicians to educate the public. Another equally prominent surgeon apologetically says that if we will only let the chiropractors alone they will exterminate themselves. A third proclaims that they are beneath our dignity, and a fourth suggests that we should wait until the sentiment of the medical profession crystallizes. The young men and general practitioners are speechless, feeling that it is their duty to suffer.

The leaders of the medical profession are professors of medicine, surgery and pathology, who have had experience with thousands of spines, dead and alive, and know all about nerves. Their influence would be irresistible. They are open to the suspicion that their inactivity results from the fact that they are in no way injured by the cults and that possibly they derive certain benefits from these illegitimate, incompetent practitioners. That they are in no way injured is perfectly evident, since they hold honorable and lucrative positions in colleges and hospitals. Furthermore, their work is such that the chiropractors do not even compete with them. But let the chiropractor ask for the right to prescribe drugs and to perform surgical operations, and I believe that these professors, surgeons, and medical consultants would throttle them in a minute, all of course in the interest of the public.

But the chiropractors have carried their business apace a step farther. They have even been ready to do a favor to the leaders of the medical profession and put them under obligations. Many prominent law firms are tied up by chiropractic retainers. And it is equally true that many prominent surgeons and consultants are tied up by chiropractic consultations and are very much embarrassed when it becomes desirable to take an unwavering stand on this question. In other words, some very prominent medical men are not only not hurt but are actually helped by the ignorance and friendship or the cunning of the chiropractors.

I conclude that the real reason for the success of the chiropractors is their shrewdness in inducing an indifference on the part of the leaders of the medical profession.

W. L. WALLACE,
Syracuse, N. Y.

195 Church Street, New Haven, Conn.,
December 26, 1922.

Editor, NEW YORK STATE JOURNAL OF MEDICINE:

The undersigned is desirous of obtaining information regarding the prevalence of Infectious Jaundice in your State. The disease is non-reportable and information regarding its prevalence cannot therefore be obtained from Boards of Health.

I shall be grateful for any reports of outbreaks which your readers may care to send me.

GEORGE BLUMER, M.D.,

117 West 76th Street,
New York, December 23, 1922.

Editor, NEW YORK STATE JOURNAL OF MEDICINE:

The account of the stated meeting, New York City, November 27th, 1922, of the Medical Society of the County of New York, as reported in the December issue of the NEW YORK STATE JOURNAL OF MEDICINE omits an important portion of the proposed amendment to the Constitution which was defeated at this election.

Unless this clause is given with the context the reason for the proposed amendment will not be understood by members of the State Society, other than those of the County of New York. As printed in the JOURNAL this report reads: "The following amendment to the Constitution was defeated." Article 2, by striking out Chapter I, and substituting the following. The clause omitted in this place by the JOURNAL quoted Article 2, Chapter I of the Constitution, which is as follows: "The objects of the Society are to aid in regulating the practice of medicine and surgery in the County of New York, to aid in securing the enforcement of the laws thereto, to contribute to the diffusion of true science, practicing the knowledge of the healing art and to assist in the preservation of the public health." The substitute offered was printed in full by the STATE JOURNAL. It was taken directly from the Constitution of the State Society. The reason for offering this substitute was that the Constitution of the State Society takes cognizance of the difference between "just" medical laws relating to the Practice of Medicine and laws merely relating thereto, an important distinction in these days. It also proposes to guard and foster the material interests of its members, another omission in the Constitution of the local body which should be rectified at a time when the State is actively engaged in supplanting the private physician by political and lay medical bodies at every opportunity. Out of a total membership of 3,000 only 533 members voted at this election and even less on this question. Despite the indifference on the part of the members of the N. Y. County Medical Society to these important issues, it has a representation in the State Society numbering 23 delegates.

JOHN P. DAVIN, M.D.

Herkimer, N. Y., December 25, 1922.

To the Editor, NEW YORK STATE JOURNAL OF MEDICINE:

I have just read in the JOURNAL for December the editorial by one of you, "A. W. F.," entitled "Volstead Prohibition and the Physician." Will you please let the readers of our JOURNAL know on what proven scientific grounds you consider alcoholics to be in any cases the most desirable medicines? I can see no reason in the wail of "A. W. F." against the limitations on the use of alcoholics as medicines and I can see no reason in the attack on the constitutionality of that part of the Volstead act which protects the people against the example of uninformed advisers who prescribe booze in treating all sorts of disease. On account of the inferior value of alcoholics as medicines and on account of their deleterious effects on the human body and mind and on the body politic when used either in large or small quantities, it would be more reasonable to complain because the Volstead law does not absolutely forbid the use of alcoholics for any internal use.

I should like to know of at least one disease in which alcoholics are better than some other medicines. Of course, many diseases are treated by alcoholics by some people but in any instance other medicines would be more scientific. Please inform us in what instances alcoholic beverages have any specific action against disease. Please inform us, also, just what you consider the therapeutic action of beverage alcohol to be. Please inform us just what superior value alcoholic beverages have as food and in what instances one would be justified in using them as food. More in detail, please let us know, if you consider that they are stimulants, whether you do not know of other drugs that are truer and more valuable stimulants; if you consider that they are sedatives, whether you do not know of other better sedatives; if you consider that they are vasodilators, whether you do not know of other better vasodilators; if you consider the alcohol itself to be a food, whether you do not know of other better, readily absorbed foods and whether, if alcohol is to be used as a food, it is necessary that beverage alcoholics should be used or whether, instead, plain alcohol may not be diluted and flavored for such purpose; if you consider the carbohydrate and proteid ingredients of fermented alcoholic beverages to be necessary foods, what is the percent of these ingredients present and how many pints of the beverage a patient would have to imbibe in order to obtain a certain modicum of nutrition. All these points should be considered soberly and justly and fully in a true scientific manner.

Tradition is the only thing that allows alcoholics to be retained today by anyone either as medicines or as beverages. Many people interested commercially in alcohol never touch it themselves. Will the medical profession and the people allow antiquated tradition to stand today in the place of enlightened science when the health and welfare of the American people and nation are involved?

Yours for the promotion of science and health and happiness,

GEORGE E. BARNES, M.D.

Mayo Clinic, Rochester, Minnesota,
December 6, 1922.

Editor, NEW YORK STATE JOURNAL OF MEDICINE:

I am endeavoring to make a complete study of the distribution of human actinomyces in this country. The number of cases reported in the literature is surprisingly small, and I know that the disease is not so rare as is sometimes thought. I shall greatly appreciate hearing directly from any one who has had experience with this disease, and desire to know concerning case histories the following: age, sex, occupation, residence, state in which the disease was contracted, location of lesion, duration of symptoms, and any special points of interest connected with the treatment, outcome of the disease, or necropsy findings.

A. H. SANFORD, M.D.

LEGISLATIVE BUREAU.

1923 BULLETIN No. 1

January 10, 1923.

The Committee on Legislation would urge, now at the beginning of the legislative session, that County Legislative Chairmen put on their working togs and prepare for a busy session.

The Committees with which we will have principally to deal this year are the Public Health Committee, the Committee on Codes, the Judiciary Committee and the Social Welfare Committee. County Legislative Chairmen should take special note of the personnel of these Committees, and so far as possible, properly and judiciously, become acquainted with these members in order to establish relations, either personal or through your own County Legislative Representative.

The Committee on Legislation will welcome any suggestions you may have to make, or any information you may be able to give us relative to legislative matters.

If by chance you stumble against the fact that any of your legislative representatives are particularly enthusiastic either "for" or "against" medical legislation, don't keep it to yourself; jot it down on a piece of paper and send it in to the Bureau. Your Committee on Legislation will be able to work the more effectively with all possible data that can be gathered before them.

The Committee on Legislation hopes to establish closer liason with the Committee on Public Health and Medical Education of the State Society, of which Dr. Joshua M. Van Cott, 17 West 43rd street, New York City, is the Chairman. Papers which members have published or read, articles of use by members, etc., should be sent to him.

We trust that the County Legislative Chairmen will function as well this year as they did last, and that our united efforts in behalf of the Public Health will be successful from every standpoint.

We would suggest that all changes in the personnel of your County Society officers be at once reported to the Legislative Bureau that our files may be accurate for use during the session.

W. WARREN BRITT,

FRANK D. JENNINGS,

JAMES N. VANDER VEER, Chairman,

Committee on Legislation.

Lists of the Standing Committees on Public Health, Codes, Judiciary and Social Welfare, of the Senate and Assembly for 1923-1924:

SENATE**PUBLIC HEALTH**

Daniel J. Carroll, Kings County; Nathan Straus, Jr., New York County; Philip M. Kleinfeld, Kings County; Warren T. Thayer, St. Lawrence County and Franklin County; Jeremiah F. Twomey, Kings County; William L. Love, Kings County; Allen J. Bloomfield, Otsego County, Madison County, Montgomery County,

Schoharie County; J. Griswold Webb, Putnam County, Dutchess County and Columbia County.

CODES

Henry G. Schackno, Bronx County; Salvatore A. Cotillo, New York County; Meyer Levy, New York County; James A. Higgins, Kings County; Walter W. Westall, Westchester County; Thomas I. Sheridan, New York County; Ellwood M. Rabenold, New York County; James T. Walker, New York County; Arthur F. Bouton, Ulster County, Greene County and Delaware County; Frank Giorgio, Queens County; Philip M. Kleinfeld, Kings County; James L. Whitley, Monroe County.

JUDICIARY

Salvatore A. Cotillo, New York County; Henry G. Schackno, Bronx County; Benjamin Antin, Bronx County; James A. Higgins, Kings County; William T. Byrne, Albany County; Caleb H. Baumes, Sullivan County and Orange County; Charles E. Russell, Kings County; Michael E. Reiburn, New York County; Ellwood M. Rabenold, New York County; James J. Walker, New York County; Parton Swift, Erie County; Thomas I. Sheridan, New York County; Philip M. Kleinfeld, Kings County; Meyer Levy, New York County; James L. Whitley, Monroe County; Clayton R. Lusk, Cortland County, Broome County and Chenango County.

ASSEMBLY**PUBLIC HEALTH**

Frank H. Lattin, Orleans County; George N. Jesse, New York County; Julian C. Smith, Otsego County; Herbert A. Bartholomew, Washington County; Burton D. Esmond, Saratoga County; Wallace R. Austin, Monroe County; Edwin J. Carpenter, Steuben County; Clemence C. Smith, Orange County; Franklin S. Sampson, Yates County; Maurice Bloch, New York County; James Male, New York County; Julius Ruger, Kings County; Paul P. Gallagher, Queens County.

CODES

William Duke, Jr., Allegany County; William W. Campbell, Schenectady County; Burton D. Esmond, Saratoga County; Russell B. Livermore, Westchester County; Victor R. Kaufmann, New York County; James R. Robinson, Tompkins County; Henry W. Hutt, Erie County; Horace M. Stone, Onondaga County; Edwin J. Carpenter, Steuben County; Edward J. Walsh, Bronx County; Frank R. Galgano, New York County; William Lyman, Bronx County; Francis J. Cronin, Kings County.

JUDICIARY

Edmund B. Jenks, Broome County; Sol Ullman, New York County; Miller B. Moran, Lewis County; Ezra A. Barnes, Oswego County; Russell G. Dunmore, Oneida County; William J. Hickey, Erie County; Herbert B. Shonk, Westchester County; Arthur Benson, Onondaga County; Adolf F. Johnson, Chautauqua County; Louis A. Cuvillier, New York County; Joseph V. McKee, Bronx County; Thomas F. Cosgrove, Richmond County; John J. O'Connor, New York County.

SOCIAL WELFARE

Frank S. Hall, Niagara County; George N. Jesse, New York County; Frank H. Lattin, Orleans County; F. Trubee Davison, Nassau County; Fredric S. Cole, Herkimer County; Simon B. Van Wagenen, Ulster County; Edmund F. Cooke, Erie County; William L. Vaughan, Richmond County; Joseph T. Flynn, New York County; Julius S. Berg, Bronx County; Henri W. Shields, New York County; John Cashmore, Kings County; Meyer Alterman, New York County.

**THE WORKMEN'S COMPENSATION LAW.
REPORT OF THE COMMITTEE ON MEDICAL QUESTIONS**

New York City, November 10, 1922.

HON. WILLIAM H. HOTCHKISS, *Chairman, Committee of Five, Department of Labor of the State of New York.*

HONORED SIR: Your Committee on Medical Questions begs leave to report that it has met the situation described in the original letter of Hon. Henry D. Sayer, the Industrial Commissioner of the State of New York, and, as a result, your joint judgment is vindicated and the medical profession of New York State today looks more sympathetically upon the Workmen's Compensation Law and all that it stands for, than it did when your Committee began its inquiry in September, 1921.

Your Committee found:

(a) That there was much misunderstanding as to the medical provisions of the Workmen's Compensation Law;

(b) That a great many of the most skillful and reputable doctors of the State refused to practice under the law;

(c) That abuses existed in the administration of the law from the medical viewpoint which should be corrected;

(d) That a certain class of doctors jeopardized the reputation of the profession by excessive charges for rather questionable service;

(e) That the enactment and operation of the Workmen's Compensation Law has developed a new field in medicine, namely, industrial medicine and surgery;

(f) That the item of medical costs under the New York State Workmen's Compensation Law approximately has doubled within the past six or seven years and that indications are that the increase in such costs will be greater in the future rather than less; and

(g) That a little more mutual understanding on the part of the doctors, employers and insurance carriers, a little patience and common sense on the part of the administrators and a few minor amendments to the Workmen's Compensation Law, would straighten out a majority of the complaints and remedy most of the abuses.

And it is the privilege of your Committee now to report:

(a) That the medical profession generally, as a result of the work of the Committee, does now understand in greater measure than before the aims and objects of the Workmen's Compensation Law;

(b) That reputable and skillful doctors, assured of courtesy and equitable treatment, will take cases under the Workmen's Compensation Law in the future;

(c) That many of the abuses which existed are being corrected;

(d) That the doctor who makes excessive charges for questionable service should be investigated and discouraged; that insurance carriers who act illegally should be prevented from so doing;

(e) That the new industrial medicine and surgery will be, and is, encouraged to a higher development;

(f) That medical costs are being studied with the idea of some sensible and equitable regulation in the future; and

(g) That all parties in interest, as a result of the work of your Committee, now better understand that the operation of the Workmen's Compensation Law is as necessary to the success of our industrial life as is the operation of the machinery itself; that compensation for accidental injury or death arising out of and in the course of employment is not charity, nor philanthropy, nor beneficence of any sort, but is an inherent right of the workman and a proper charge against industry; that the administration of the law must be impartial, just and not dominated by sharp practices or

by mawkish sentimentality leading to abuses which your Committee believes would eventually jeopardize the very life of the law itself; that educating all parties in interest to a better understanding of the principles enunciated in this paragraph is a continuing duty of the administrators of the law and of every friend of the law; that it is the duty of everybody, official or private person, having knowledge of illegal acts under the compensation law to report them to the proper authorities.

(h) That certain problems have arisen as a result of the operation of the Workmen's Compensation Law which makes it apparent that there should be some regulation of medical practice to correct and prevent abuses and that these problems be considered by the Advisory Committee.

These findings and report, Honored Sir, are based upon the subjoined brief résumé of the history of the Committee's work, all of which is respectfully submitted.

**COMMITTEE ON MEDICAL QUESTIONS
New York State Department of Labor**

J. Frank Scannell, Boston, Chairman, General Counsel, Federal Mutual Liability Insurance Company.

Robert F. Coleman, New York City, Secretary, Director, Bureau of Workmen's Compensation.

Oliver G. Browne, New York City, Secretary, Self-Insurers Association.

Thomas J. Curtis, New York City, Vice-President, New York State Federation of Labor.

Mark A. Daly, Buffalo, General Secretary, Associated Industries of New York State, Inc.

Charles Deckelman, Hartford, Travelers' Insurance Company.

William H. Foster, Syracuse, Aetna Life Insurance Company.

Leonard W. Hatch, New York City, Manager, State Insurance Fund.

John W. Cronin, Boston, General Attorney, Liberty Mutual Insurance Company.

Dr. P. H. Hourigan, Buffalo, President, New York State Society of Industrial Medicine.

Dr. Frank D. Jennings, Brooklyn, Member of Committee on Legislation, Medical Society of the State of New York.

Dr. James F. Rooney, Albany, President, Medical Society of the State of New York. (Dr. Eden V. Delphay, New York City, proxy.)

Dr. A. R. Tilton, New York City, Surgical Supervisor, Travelers Insurance Company.

POINTS OF CONTROVERSY

(a) Specialized Medical Service;

(1) "Farming."

(2) Restoration of function.

(b) Payment of Doctors' Bills.

(c) "Lifting" of cases.

(d) Free choice of doctor.

(e) Schedule of fees;

(1) Hospital.

(2) Doctors.

(f) Records and Reports of doctors and hospitals.

The testimony before the Committee in relation to these points would fill volumes. For the purpose of this report, it is sufficient to say that abuses were charged against the doctors, the employers, the insurance carriers, the Department and the workmen themselves and that individual cases were cited and proved and there was absolutely no doubt in the minds of the Committee, at the conclusions of the hearings, that the charges were true in many cases and that the only hope for the future of the law was for everyone—every party in interest—to clean house. And the Committee decided to officially assist in the house-cleaning.

Briefly summarized, the testimony anent the "Points of Controversy" may be said to have covered the following ground:

SPECIALIZED MEDICAL SERVICE

The medical and surgical specialties have been called into service in the administration of the Workmen's Compensation Law and have been very useful both in the treatment of cases and in the determination of disabilities of injured workmen. Moreover, of late years, especially during the last decade or two, there has grown up a system of reconstruction treatment consisting of the use of electricity, diathermia, light, X-ray, hydro-therapy, baking, massage, mechanical and other devices for re-educating and strengthening muscles, restoring nerve function, etc., which have resulted very materially and more quickly in restoring the injured workman to a better, and more nearly complete, condition of health and future usefulness than if they had not been used. All these services have the hearty approval and support of the employees, employers, insurance carriers, and of the medical profession—all of whom agree that such services fill a decided need—and they should be continued under appropriate supervision. They are not needed in all cases, and are therefore, in these instances, a waste of time and money and may sometimes do irreparable harm, especially when the services are performed without their being under the competent supervision of qualified physicians or surgeons or when they are contraindicated.

Obviously, as a result of the operation of the Workmen's Compensation Law, there has grown up a specialized medical and surgical service which had come to be known among general practitioners as "farming."

The objection of the regular practitioners was not concerned solely with the treatment, but to the system by which the treatment was given. The specialized medical and surgical service consists of a central station in which all the apparatus and equipment for physio- and hydro-therapy, baking, massage, etc., is installed and a number of so-called "dressing stations" where minor treatments and dressings are made. The regular practitioner looked upon this practice as commercializing the medical profession. The charge was made that this specialized service cut the rates of pay for medical and surgical treatment and care, and that the regular practitioner had neither the time nor the inclination to compete with such a service and, as a consequence, refused to accept compensation cases. The Committee found this to be true in large measure so far as the action of the regular practitioner was concerned.

The Committee found that there was a decided opposition by the representative of the medical profession on the Committee, to a practice which they designated as "farming," and which they defined as "commercialized medical service by which some persons make contracts with employers for so much per dressing, or other services, required by the law, or to contract to do this work for a lump sum per year, and apportion or "farm out" the work to other physicians who are paid a lesser sum per dressing or other service than that agreed upon by the persons above designated with the employer; that the insurance carriers, employers, and workmen were agreed that an organized medical service filled a want and was rapidly becoming more and more a necessity under the Workmen's Compensation Law; and that from the testimony of many physicians at these hearings, and from the representatives of the medical profession on the Committee, that this profession is opposed to the institution of a State-wide organization for the administration of the medical services required by the law, because this would be in effect the institution of the "panel system."

PLANT MEDICAL SERVICE, FIRST AID TREATMENT

A number of industrial corporations have their own first-aid stations, hospitals, and physicians entirely within the plant or immediately adjacent thereto. In this way it is possible to give first-aid and often thereby

prevent infection and loss of time as well as disability to the injured workman. Nevertheless, it was testified to before this Committee that some of these first-aid stations are very badly managed; that occasionally there were no properly qualified persons in attendance at these stations; and the first-aid which was applied did the injured workman a great deal of harm because of the ignorant, inefficient and wrong treatment. The Committee hopes that this evil will be remedied.

PAYMENT OF DOCTORS' BILLS

One of the most prolific complaints at the public hearings concerned the payment of doctors' bills. The charge was made that it was the practice of the carriers to raise objection to the charges of the doctors attending compensation cases, and in many instances, to arbitrarily reduce the amounts. Doctors pointed out that sooner than spend the time necessary to prove the justice of charges at a hearing before the Industrial Board, they accepted the amounts which the carriers were content to pay and, thereafter, refused to accept compensation cases. The Committee found that there was just cause for these complaints and this matter, too, will be carefully considered from this time forward by the Advisory Committee.

"LIFTING" OF CASES

It was brought out at the public hearings that the practice was more or less prevalent on the part of the carriers and employers to compel injured workmen to leave the doctors who attend them immediately following the accident and accept treatment from doctors designated by the carriers. This practice had come to be known as "lifting cases." It was found that in this, as in many of the other points of controversy, there were two sides to the question but that, in the main, the balance of injury was on the side of the doctors and that there should be some regulation. The Committee accordingly recommended a rule (which appears as a part of this report) devised to minimize this practice, which the doctors on the Committee hope will be effective.

FREE CHOICE OF DOCTORS

This point proved to be one of the most fertile fields for argument. Regular practitioners throughout the State who have had contact with the administration of the Compensation Law, but with a limited knowledge of the law itself, were forceful in their demands for free choice of physician by the injured workman. Industrial doctors and those other practitioners who handled many compensation cases, and particularly the doctors regularly on the staff of hospitals, agreed that unlimited free choice of physician on the part of the workmen might very easily degenerate into abuses which would practically nullify the intent of the law. Your Committee found the subject so controversial that further investigation seemed to be the only logical thing to do and it accordingly adopted the following resolution:

"Resolved, That the entire matter of free choice of physicians be left in the hands of the Advisory Committee to make whatever suggestions it deems necessary."

It was pointed out that under the Compensation Law as it now reads free choice of doctor is permitted. The workman, if he wants to pay his own medical bills, may select any doctor he desires; if, however, he takes advantage of that provision of the law which compels the employer to pay the medical bills, he must accept the services of the doctor chosen by the employer—if that doctor is competent and gives adequate treatment.

SCHEDULE OF FEES

With very few exceptions the doctors of the State were against the adoption of any schedule of fees. The Committee gave this subject much attention both on the public hearings and in executive session. A sub-committee was appointed to draft a tentative schedule, which was duplicated and several hundred sent out for sug-

gestion and criticism. There did not seem to be any common ground for agreement, due in large measure to geographical conditions. New York City was found to be living on one scale and the remainder of the State on another. The fees which were deemed adequate in New York City were thought to be too high in the remainder of the State and up-State fees were deemed to be too low for New York City. It manifestly was not feasible to operate under two schedules, one for New York City and another for the remainder of the State, and the Committee finally agreed to hold the matter open for further inquiry and discussion. There was some sentiment, though not marked, for a schedule which would provide a minimum and a maximum charge for specific treatments and operations, the exact amount to be allowed, in the event of controversy, to be adjudicated by the Industrial Board. Inasmuch, however, as the experience under the law has somewhat standardized medical charges, and as the decision in the last analysis is vested by law in the Industrial Board, it was deemed expedient to make no recommendations at this time.

The question of hospital charges was naturally considered in connection with the fees for doctors' services. It was found that here, too, there was a well-defined standardization with very little difference between public and semi-private institutions. Hospital managements, on the whole, seemed well satisfied with the manner in which their charges were handled.

The importance of this subject of fees may be realized by referring to the figures in the possession of the Committee, showing the increase in medical costs, which is due in large measure to the extension of medical benefits, as shown by the statements furnished by insurance carriers.

RECORDS AND REPORTS OF DOCTORS AND HOSPITALS

One of the most important subjects which the Committee investigated was that of reports of doctors and hospitals. In the adjudication of cases under the Compensation Law proper reports are fundamental. The Committee found that hospital records, for the most part, were more satisfactory than the reports of doctors. But even the hospital records were found susceptible to improvement. The reports of doctors generally were not of a character to be most useful in the administration of the law. Delay in filing reports was a common evil. The Committee felt that it was necessary to recommend the adoption of an amendment to the law which would insure better reports without any delay. (See subheading (b) "conclusions.")

CONCLUSIONS

Your Committee has agreed upon certain conclusions which it believes will make for greater efficiency in the administration of the law and which eventually will bring satisfaction to all parties in interest. These conclusions are:

- (a) Better understanding of law on part of doctors, employers and insurance carriers.
- (b) Correction of outstanding abuses:
 - (1) Amendments to law.
 - (2) Adoption of rules.
- (c) Appointment of permanent Advisory Committee.
- (d) Standard tests and treatment for compensation cases.
- (e) Better understanding between carriers and doctors.
- (f) Future development of specialized medical service.

BETTER UNDERSTANDING OF LAW

One of the most amazing things which the Committee encountered and which threw an entirely new light on the medical problem was the lack of understanding on the part of some of the employers, insurance carriers and doctors of the medical provisions of the Workmen's Compensation Law. In many instances doctors exhibited only vague understanding of the spirit and intent of the Compensation Law and many times the Committee was obliged, in answer to some complaint, to explain to the doctors that the law provided for very definite and mandatory things which no administrative or judicial official had power to change or modify in any particular. It is the opinion of the Committee that if all parties in interest would familiarize themselves with the Compensation Law and come to understand that the law primarily is a vehicle by which workmen are to be restored to health and earning capacity and is not a form of poor relief, that most of the complaints offered would dwindle into insignificance. The same criticism, if it can be called criticism, may be lodged against many employers and insurance carriers. But there are doctors, employers and insurance carriers who seem to have grasped the spirit and intent of the law and it is to be regretted that their conspicuous example is not more generally emulated.

On the consuming public is the obligation to pay for the item of workmen's compensation in the same manner that it pays for other items in the overhead of industry, to the end that our human resources shall be conserved and the self-respect and independence of our workmen shall be maintained; on the employer rests the obligation to collect and disburse that which rightfully is the workman's due; on the State rests the obligation to see to it that it is equitably disbursed. It is the opinion of your Committee that in this general scheme there is a duty for the medical profession which the Committee believes the medical profession is perfectly willing to undertake.

Your Committee feels that if it has accomplished nothing else it has at least laid the foundation for a better understanding of the Workmen's Compensation Law and all that it implies and, with such supervision as the Advisory Committee (see sub-heading (c) "conclusions") will be able to give, with the permission and assistance of the Industrial Commissioner, this work of education may be continued until the last vestige of misunderstanding has been eradicated.

CORRECTION OF OUTSTANDING ABUSES

The work of the Committee in this respect speaks for itself. After investigation the Committee recommended to the Legislature an amendment to Section 13 of the law which wiped out the old sixty-day restriction on the treatment and care of injured employees; it also inserted a new provision to insure proper and adequate reports from doctors. So that it may be better understood the Committee includes herewith Section 13 of the law, the matter in italics being new and the matter in brackets [] being old matter omitted:

SEC. 13. Treatment and care of injured employees. The employer shall promptly provide for an injured employee such medical, surgical or other attendance or treatment, nurse and hospital service, medicine, crutches and apparatus *for such period* as the nature of the injury *or the process of recovery* may require [during sixty days after the injury; but the commission may where the nature of the injury or the process of recovery requires a longer period of treatment require the same from the employer]. If the employer fails to provide the same, after request by the injured employee, such injured employee may do so at the expense of the employer. The employee shall not be entitled to recover any amount

expended by him for such treatment or services unless he shall have requested the employer to furnish the same and the employer shall have refused or neglected to do so, or unless the nature of the injury required such treatment and services and the employer or his superintendent or foreman having knowledge of such injury shall have neglected to provide the same; *nor shall any claim for medical or surgical treatment be valid and enforceable, as against such employer, unless within twenty days following the first treatment, the physician giving such treatment furnish to the employer and the Industrial Commissioner a report of such injury and treatment, on a form prescribed by the Industrial Commissioner.* All fees and other charges for such treatment and services shall be subject to regulation by the Commissioner as provided in section twenty-four of this chapter, and shall be limited to such charges as prevail in the same community for similar treatment of injured persons of a like standard of living.

The removal of the old sixty-day restriction will add very materially to the medical costs under the law. This, however, is merely consistent with the spirit and intent of the law, which, as has been noted, is more concerned with getting a workman back to his job with his earning capacity impaired as little as possible rather than with paying him only a fraction of his earning capacity in disability benefits.

Your Committee also includes under this sub-heading the rules which it has formulated for the correction of abuses and which it has recommended to the Industrial Board for adoption. These rules follow:

A. All attending physicians' reports (c-4) shall be personally signed by the physician rendering the treatment, unless such requirement is waived by the Industrial Board.

B. In cases requiring an examination and opinion by medical specialists, the attending specialist, together with one chosen by the employee or employer (carrier) as the case may be and who shall be approved by the Industrial Board, shall make a joint examination of the claimant and submit their joint findings to the Industrial Board in writing. Such findings if in substantial accord, shall be sufficient for a final determination.

C. Bills submitted for medical care and treatment should be paid within 30 days from receipt of same and shall not be arbitrarily reduced. If bills are questioned, the carrier or employer and the physician shall endeavor to make an amicable adjustment. If the differences cannot be so adjusted the carrier or employer shall within 30 days from the receipt of each bill advise the physician as to the objections thereto in writing and a copy thereof together with a copy of the bill in question shall be forthwith forwarded to the Commissioner and shall be part of the record. Such controversy shall be immediately referred to the conference calendar.

D. No physician shall question or cross-examine any other physician who is testifying at any hearing except by permission of the Industrial Board or the presiding referee.

E. Failure on the part of an employer to designate a physician at the time of an injury to a workman, or at the time that knowledge of such injury first comes to the employer or his responsible agent, in charge of the work of the employee, shall be deemed to be refusal or neglect of the employer to furnish prompt medical treatment within the meaning of the law, and shall operate to authorize the employee to furnish the same for himself at the expense of the employer.

F. In case an injured employee is being treated by a physician and the employer or insurance carrier believes that another physician should be put in charge of the treatment of such injured workman, the employer or insurance carrier shall notify the Industrial Commissioner of the reasons for such transfer and of the

name of the physician to whom such case is transferred.

G. It shall be the duty of all officers and employees of the Department to report to the Commissioner any cases that come to their knowledge involving improper practice or inadequate medical care and treatment of claimants and the Commissioner shall call to the attention of the responsible officer or representative of an insurance carrier any such cases that are reported to him and take such proceedings as may be necessary to enforce full compliance with the law.

It is the hope of your Committee that these rules may be supplemented from time to time by additional rules which may be prompted by the observation of the Advisory Committee.

PERMANENT ADVISORY COMMITTEE

The Committee on Medical Questions, which makes this report, has been appointed by Industrial Commissioner Sayer as a Permanent Advisory Committee for the purpose of (1) investigating all complaints arising out of the administration of the Workmen's Compensation Law and making recommendations thereon, (2) advising the Commissioner in relation to administrative details, (3) formulating and recommending plans for the education of parties in interest in the spirit and intent and the working provisions of the Compensation Law, and (4) such other duties as to the Industrial Commissioner may seem necessary.

STANDARDIZED TESTS; STANDARDIZED TREATMENTS; RECORDS

Standardization of tests and treatment for compensation cases and proper records are the most desirable objects to be attained—if it is possible. Taking them in their order your Committee reports as follows:

1. Standardized Tests

After consideration of this topic in its relation to the examination of compensation patients, we find that standardization is demanded chiefly in the ophthalmological field and there particularly in the estimation of percentages loss of visual acuity. Snellen's test types are practically the universal standard of testing.

The differences of opinion here are in an attempt to translate the loss of visual acuity into percentage loss of vision. The Section on Diseases of the Eye of the American Medical Association, the Milwaukee Ophthalmological Society, eye specialists and societies throughout the country have worked out tables with figures varying as widely as from 5 to 50 per cent for 20/40ths. We find this variance has resulted in many inequalities in awarding compensation.

In the administration of the law, and to avoid the evils mentioned in the preceding paragraph, it is recommended that the Industrial Board establish by rule a uniform standard of percentage loss of vision.

Viewing the situation broadly, we can see no other field in which standardization is practical. That is, tests used in medicine are more or less standardized, plus the additions that progress constantly brings.

2. Standardized Treatments

It is unlikely that fixed standards of treatment ever can be worked out, not, at least, until injuries are standardized. However, if agreement might be reached on certain fundamental principles, much might be accomplished.

The important classes of common injuries that merit attention, roughly speaking, are two—WOUNDS and FRACTURES.

The primary care of wounds is one in which an attempt at standardization might be made. The problem is intricate in that first aid may be given by lay people, nurses or doctors. However, through proper

channels, it is possible to lay down certain principles for the cleansing of wounds which would be basic, but which could be added to as indicated. An example of this is the method of hand sterilization in hospitals, where a staff may agree that the hand scrubbing shall last seven minutes, to be followed by an alcohol rinse. If an individual operator wishes to supplement this by immersion in bichloride he may do so. But all must comply with the first two. So, with the primary care of wounds, a basic technique could be developed which would be applicable generally, plus such modifications as the individual surgeon might find necessary.

While tincture of iodine has proved a great boon in the care of wounds, we feel its indiscriminate and unwise use is dangerous.

FRACTURES in the aggregate constitute a serious problem in industrial as well as in general practice. A meeting of orthopedists and men interested in bone surgery was held recently in Boston. The business of the meeting was to work out standards of treatment for the common fractures, the average disability, etc. The transactions are to be published. If, at the time of publication, the transactions merit it, arrangements might be made for their dissemination throughout that part of the medical profession interested.

A search through recent medical literature discloses numerous articles by industrial writers on the general proposition of arriving at standards of treatment of fractures. It is, therefore, a reasonable inference that when so much attention is being given to the subject progress will follow.

We feel that standardization has possibilities and limitations. A rigid standardization is palpably impossible. But a standardization worked out on the basis of clinical experience, with sufficient statistical backing, is possible. Such a plan might for example, show that skeleton traction, with early massage and passive motion, is giving more uniformly satisfactory results in fractures of the femur than immobilization in a plaster cast. Or, in the ordinary Potts fracture, that a light plaster cast with institution of physio-therapeutic measures in the second or third week, is preferable to an eight-week immobilization in a heavy cast. That is to-day, standardization, to be practical, must be worked out from bedside experience, must be elastic and never should be of the type that would be deterrent rather than stimulating.

We cannot urge too strongly that X-ray pictures should be taken of all fractures, before and after reduction. In all patients in whom bone injury is possible or is suspected, the aid of X-ray should be invoked. This point cannot be insisted on too emphatically.

The development of physio-therapy in all its forms has been beneficial in the treatment of the industrial injured, but we cannot refrain from the comment that, like all treatment, it has clear indications and calls for skilled medical supervision. As a practical matter, we feel that it is being ordered often without clear indications and without a definite idea of what is to be accomplished by it. And, further, that such treatment is frequently continued long after it is apparent that it accomplishes nothing. We would urge that physio-therapy be restricted to the patients who clearly need it and that such treatment be carefully regulated. It is perhaps needless to point out that the unscientific and unwarranted use of these measures is unfair to the employer and the injured man, causes unnecessary expense and reflects no credit on those responsible for it.

In general, the Committee feels keenly the importance of obtaining the confidence and co-operation of the patient, and, to attain that, all recognized forms of treatment, including physio-therapy, have distinct value, a value which may be greatly enhanced by tact, kindness and sympathetic understanding.

3. Records

Records in their relation to compensation patients are of two kinds—Hospital and Dispensary and those of private practitioners. It is to be assumed that plants maintaining hospitals or dressing stations see to it that records are well kept.

In general, Hospital and Dispensary records in New York State have undergone a tremendous improvement in the past few years due to the efforts of the American College of Surgeons in the hospital field and the State Board of Charities in the dispensary field. It may reasonably be expected that this improvement will continue.

There is one detail in which hospital records might be made valuable in the compensation field of practice. That is by providing on the admission slip, or card, or on an admission history form, lines for data required on Form C-4, as issued and required by the Bureau of Workmen's Compensation. It often happens that an otherwise complete hospital record may lack details essential from the point of view of compensation requirements.

In the field of private practice co-operation of the practitioner must be sought to the end that better records be kept. We feel that a frank, open appeal to the medical profession will not be unheeded. It is essential as part of this that the insurance carriers, by their conduct toward practitioners, enlist their aid and dissipate the resentment which has resulted from the abuses mentioned in this report. Doctors will not be solicitous about records if they are being dealt with unfairly.

Assuming an "entente cordiale" simplified and brief records compiled in accordance with the necessities of the Workmen's Compensation Law can be adopted as standard in this State. Suggested types are herewith offered.

We beg to acknowledge our indebtedness to Dr. James Graves, of the Travelers Insurance Company, the Drs. Vanderveer, of Albany, and the Employers' Liability Insurance Company, of New York, records from each of these sources having been used in the preparation of the suggested forms, which are as follows:

FORM A

For physician to whom patient is sent, or by whom patient is treated, without authorization.

DR. A. R. BROWN
46 MAIN ST.

To:, 192..

DEAR SIR:
....., an employee of yours, was treated by me on His injury was

Will you kindly fill out attached form and return to me with the necessary State forms, as required by the Workmen's Compensation Law?

Very truly yours,

(Perforated)

DEAR DOCTOR:

You are hereby authorized to care for Enclosed are forms as provided by law.

My insurance carrier is address

Very truly yours,

.....

FORM B

Authorizing Physician to Render Service
 To:, M. D.,, N. Y.
 (Name)
, 192..
 (Address)

Please render such service as may be necessary to properly care for, of, Street,, N. Y., injured while employed at, at M., on the day of, 192..., subject to the provisions of the Workmen's Compensation Act.

....., Employer.
 My insurance carrier is, (Address), (Perforated)

To:, 192..

....., an employee of, address, has been referred to me for treatment by the Employer.

His injuries consist of

The treatment rendered was

I estimate the disability will be

Very truly yours,
, M. D.

FORM C

(History card for physicians' use, to be filed when treatment is at an end.)

File No. Employer Check No. Injured Address Date of accident Hour Place First treated by Date of your first treatment Is treatment now completed? If so, date of last treatment

Please estimate future treatment, if any Estimate of future disability

Give accurate and complete description of injuries

....., M. D.

Date Address

(REVERSE SIDE)

- Treatment
- I. Open wound?
 - II. General anæsthesia?
 - III. How were wounds made clean?
 - IV. If fracture
 - a. Simple?
 - b. Compound?
 - V. Fracture reduced?
 - a. Open method?
 - b. Closed method?
 - VI. X-ray taken?
 - a. Before reduction?
 - b. After reduction?

- VII. Splints applied?
- a. Ordinary splints?
- b. Plaster of paris?

- VIII. Nerves or tendons severed? Sutured?
- IX. Was there consultation?
- X. Will present injury result in any permanent condition?

NOTICE: Please forward your bill with return of this card if treatment is complete.

BETTER UNDERSTANDING BETWEEN CARRIERS AND DOCTORS

There is a bitterness and a suspicion and prejudice between a majority of the doctors and the insurance carriers. It had its origin in the practice of the carriers in cutting doctor's bills and it has been augmented by the methods which some of the carriers have adopted in handling medical cases. Much of the complaint against "lifting" was directed against insurance carriers. The practice of "padding" doctors' bills—and the Committee found that it did occur—was mainly due to the knowledge on the part of the doctor that if he sent in an honest bill some employee of the carrier would cut it to a certain net standard regardless of any special work involved and with no knowledge of the facts. For this the carrier was unquestionably at fault; and the fault was not with an employec but with the main office which permitted the promulgation of what evidently was a rule of the company.

If there is to be a smooth and satisfactory administration of the Workmen's Compensation Law, in the future there must, of necessity, be a better understanding between the medical profession and the insurance carrier. The Industrial Commissioner has power to discipline a carrier but he has no continuing power so far as the doctor is concerned. The dissatisfied doctor merely refuses to practice under the compensation law and, because of this lack of understanding between the doctor and the carrier, many extremely skillful and conscientious physicians are alienated.

Your Committee feels that it has already paved the way for a better understanding and that the work can be finished without undue retching by the Advisory Committee.

It must not be assumed that all the fault is with any one of the parties in interest. Your Committee had brought to its attention some excessive and exorbitant bills presented by physicians, without any justification whatever, and it obviously was this sort of work which caused the companies to tighten up the purse string where the doctor was concerned.

The carrier must revise his business methods and the doctor must make the value of his service comport with charges made in the same community against patients "of a standard of living" like that of the injured employee. Your Committee believes that this will be done.

FUTURE DEVELOPMENT OF SPECIALIZED MEDICAL SERVICE

Your Committee believes that the specialized medical service has come to stay, whether it be "commercialized" or not. This method for the treatment and care of injured employees has made tremendous strides during the past two years, though it has been in existence to a minor degree almost from the beginning of workmen's compensation in New York State in 1914. Notwithstanding its impetus forward the specialized medical and surgical service still is in its infancy. There are two or three notable examples of such a service in New York State and they have assumed the proportions of a big business. In sudden expansion there is, of course, danger. It is quite conceivable that this specialized medical and surgical service may grow so fast that the business aspect will submerge the humanitarian and ethical aspects. This, naturally, must be avoided at any

Fill in duplicate, one copy to physician, other copy to insurance company.

Please detach and mail to insurance carrier within 24 hours after first treatment.

NOTICE: Please forward your bill with return of this card if treatment is complete.

cost, and your Committee recommends that the industrial Commissioner instruct the Advisory Committee to closely observe the development of such services as now exist with the idea in mind of eventually recommending rules to govern their operation.

Your Committee feels, however, that there is a real field for specialized medical surgical service in connection with the Workmen's Compensation Law but that it must develop along ethical and humanitarian lines in a ratio greater than it develops as a business institution; and to insure the supervision of such development the Advisory Committee has adopted a resolution referring the whole question back to the Committee on Medical Questions with instructions to investigate the medical efficiency and the ethics of the practice.

In conclusion your Committee desires to thank you, Honored Sir, and your associates, for the privilege of participating in this work and it sincerely hopes that its effects will not only meet with your approval but that it has really benefited all those who must live together under the Workmen's Compensation Law of the State of New York.

Respectfully submitted,

COMMITTEE ON MEDICAL QUESTIONS.

J. FRANK SCANNELL, *Chairman*,

THOMAS J. CURTIS,
MARK A. DALY,
CHARLES DECKELMAN,
WILLIAM H. FOSTER,
LEONARD W. HATCH,
JOHN W. CRONIN,

DR. P. H. HOURIGAN,
DR. FRANK D. JENNINGS,
DR. J. F. ROONEY,
DR. A. R. TILTON,
OLIVER G. BROWNE,

ROBERT F. COLEMAN, *Secretary*.

DEPARTMENT OF FICTION.

DRAMA IN AN OPERATING ROOM.

BY STEPHEN J. SPITZER, M.D.

Borough of the Bronx.

PROFESSIONAL duties of the day presumably ended, we were, as was our custom, quietly spending the evening in casual conversation, and discussion of our cases, with frequent periods of mutually grateful silences. My colleague's was an oddly ascetic nature; and these evenings expressed the limit of his social inclinations. In the most commonly accepted sense of the word, he was a recluse. Young, of good appearance, and engaging personality, the coming surgeon in Hampton, intimately concerned in the very lives about him—and still the eremite. His paradoxical peculiarity with its hint of mystery continually stimulated curiosity; and since he was unapproachable socially, his professional services were increasingly in demand.

The most anybody knew of George Sanford was that he had been graduated from Harvard, and had interned at the Massachusetts General Hospital. Also that, without having a single acquaintance in the town, he had purchased the house he now occupied and where six months later he had established himself—alone, except for a middle-aged female servant.

I felt somewhat flattered that of the score or more doctors in the town, mine was the sole com-

panionship he ever sought. And in turn his pensive, inscrutable blue eyes, and his enigmatic aloofness had a fascination for me that was untinged with any of the common curiosity. He almost completely dominated our relationship, but without obtrusiveness; and he always set the mood of our intercourse.

This evening, Sanford was thoughtfully thumbing the pages of a medical journal, during one of those intervals of silence, when with startling suddenness the 'phone bell's ring crashed into the midst of our reveries. He reached out and languidly raised the receiver to his ear. "This is he speaking," he said; and the next instant, he gave a quick start, and turned deathly white. His staring eyes leaped from one object to another without seeing. He looked as though he wanted to drop the receiver and run. After a manifest effort at control, it was with a thick, strange voice that he stammered: "No—No—I can't—it's—it's impossible. I can't possibly operate tonight, doctor—er—not well—no, not feeling well—really. . . . Dr. Lowney usually does your work, doesn't he?—he is here with me now. I'm sure he would do it for you. . . . Yes, I understand—but surely you can persuade your patient—please try." There followed a lapse in the conversation which found me sitting bolt-upright with open-mouthed amazement. Out of Hampton in which Sanford had not a single extra-professional interest, had come something like a tornado to rip him from his quiet mooring, and strike terror to his heart. He looked like one afraid of death and awaiting his death sentence. Again he listened at the 'phone. The sentence—whatever it could be—was spoken. He had lost his appeal; I could see from the way his head fell limp on his chest. "Very well," he brought himself to say in a voice hardly audible; "attend to the hospital arrangements, and I'll see you there. Dr. Lowney will scrub up with me."

He seemed totally oblivious of my presence as he struggled with his emotions for mastery. No one observing the painful workings of his facial muscles, could now accuse him of being the insensitive automaton. The condition of the poor fellow was pitifully tragic; and not understanding, I could neither help nor offer sympathy. Perhaps I could not, even if I understood. At any rate I dared not question him for I knew that my friend would tell me if he wanted me to know. Yet it would have been preternatural for me not to speculate upon the possible character of the bomb that had been so catastrophic in its effect; but rack my imagination as I might, I could think of utterly nothing. Surely there was no conceivable operative difficulty that might terrify him; and just as certainly, it could not be the identity of the person, for the patient had signified an exclusive desire for his services—

Slowly, Sanford made ready to leave for the hospital, and evidently took for granted that I understood about my accompanying him; so I followed his example. Suddenly, on a quick impulse, he rang for the housekeeper. When she made her appearance—had he become demented? I feared it—he ordered his grip packed, for he was to take the first available train leaving Hampton in the morning. As we went out to the garage for the car, I wanted to question him by way of testing his sanity, but decided to bide my time for awhile and await developments. We got into the machine, which he started with a leap, and at a mad pace took to the road. Pedestrians were forced to scramble wildly out of his path. Vehicles, with fortunate discretion, yielded the right of way. He turned on two wheels into the side-street that led to the hospital. We alighted; and only then could I take my first full breath. But with quick reversal of mood, he walked slowly up the steps, and hesitatingly passed through the corridors to the elevator.

Dr. Smith met us at the door of the operating-room. After exchanging greetings, he asked Sanford to examine the patient, whose condition he had diagnosed as a gangrenous appendix; but Sanford simply shook his head. This again was beyond my comprehension, being a deviation from a principle which he had always maintained most firmly. Under the circumstances, I decided I should make the examination myself.

When I rejoined Sanford, he had an odd look in his eyes; and after a nervous pause, with trembling anxiety in his voice—which I had been wanting to hear—he asked: "What did she say?—did she want to speak to me?"

"No. She only wanted to know if you were to operate on her," I told him; and seeing my opportunity in his ill-concealed disappointment, I asked: "Why didn't you wish to look at the patient?"

He hesitated a long while, and then in a low tone further muffled by the noise of our scrubbing-brushes and the running water, he recounted to me briefly how he had met Miss Hough while he was at Harvard and she was attending Wellesley. There had followed an ardent attachment which waxed and strengthened until it had meant more to him than anything else. They became engaged; and they planned; and he bought the Hampton home. A senseless quarrel brought their estrangement; and to him, subsequently, the pangs of an ungovernable jealousy and the anguish of strong yearnings. Grace had continued through college apparently untouched, the most popular girl in Boston. For a long time, he, however, had suffered as he had thought no man could suffer. The hunger for her tore him with wide, painful wounds that seemed never to heal. He did not know why; he was utterly

unable to forego his original intention to practice in Hampton. His ascetic habits, however, finally brought to his soul some measure of peace, and precluded also a possible social encounter with Grace. The latter contingency he had dreaded terribly; but recently he felt quite secure. The pain had dulled to more bearable proportions.

Now this had to happen, just when he had begun to forget. She had in her cold judgment, paid him a bootless compliment which, in its effect, showed conclusively how great still was her power to hurt. He dared not speak to her. He would leave before she recovered from the anesthesia; and I was to take care of the after-treatment. He shuddered for the moment that he touched on the outcome of the operation, as though that subject possessed another terror for him,—and well it might.

When the table was rolled into the operating room, Sanford's face blanched to the color of the tiled walls; and in the drenching light of the powerful tungsten lamps overhead, his eyes were deep black recesses in a sharply outlined skull. And with the loose operating robe, he was truly ghastly. Not until the figure on the table was completely draped, and only the iodinated operative field remained exposed, did he make a move.

Silently we took our respective positions. Everyone in the room seemed to have sensed that something unusual was transpiring, and not a word was spoken but in a whisper. Sanford picked up a scalpel, and with his left hand felt for the landmarks. An unconscious fear held my hands poised, while I watched him warily. But with the first stroke of the knife, I felt immediate relief. It was a cool, self-assured, precise technician that made the incision. Never did his hand falter or hesitate a moment. Not a movement was wasted. The intelligent deftness of the man was almost uncanny—to the very last closing suture.

The operation completed, he stepped away from the table, and moved, nervously now, about the room. He seemed very slow getting out of his gown; and fidgeted with his gloves in pulling them off—evidently altogether abstracted. By the time he had washed the wet powder from his hands and dried them, the patient stirred and showed every evidence of recovering from the anesthesia. Suddenly I noticed that Sanford was standing as if transfixed, his eyes wide, and directed on the patient's face. Her lips were moving. They were forming syllables. She was going to speak. The words became audible: she was whispering: "George . . . George." Sanford had recognized the word on her lips before it could be heard; and now he drew closer, listening—waiting. "George—George—," she repeated again, "I—I love—you."

PRUNES.

Contributions Invited

At the Queens County dinner on December 18, 1922, Senator-elect Copeland detailed his experience at the last Gridiron Club dinner in Washington, including the following:

Radio Message for Dr. Copeland.

MR. RYAN—Mr. President.

PRESIDENT HORNADAY—Mr. Ryan.

MR. RYAN—Is Dr. Copeland, Health Commissioner of New York City and Senator-elect from the State of New York, present?

PRESIDENT HORNADAY—He is.

MR. RYAN—Will Dr. Copeland please rise? Doctor we have received a curious radio message for you which I should like to read. It is dated "The Elysian Fields, Second Year of the Age of Normalcy." It is signed "Hippocrates, Father of Medicine." The message reads:

"My son, I have watched you closely and with pleasure and I want to give you a little advice. You will find use for your medical training in the Senate and here are a few pointers as to what you may expect there. Cold feet are epidemic around election time, complicated by weak heart. Contrary to your usual experience you will find callouses on the tongue, but not on the hands. Lapses of memory are frequent as in the matter of pre-election promises. Ear trouble is prevalent due to keeping that organ close to the ground all the time. Lockjaw is rare—very rare. There are several cases of hookworm, and one or two biological mysteries, but you might as well let nature take its course. Never diagnose Senator Pat Harrison's symptoms as colon trouble because Pat never uses punctuation. Do not suspect hydrophobia because of the manifest dislike of water. You may abandon obstetrics as the birth of new ideas in the Senate is rare. If you discover a sense of humor test its alcoholic content. Do not confuse seniority with senility, although difficult to distinguish. One last word of advice. Be sure to bring one thing with you to the Senate—a gas mask for your personal protection."

Cordially and sincerely yours,

HIPPOCRATES.

Dog Language.

Agitated Hotel Manager—"Say, don't you know that you shouldn't whistle in the lobby like that?"

Bell Boy—"Boss, I ain't whistlin'. I'se pagin' Missus Jones' dawg."—*Life*.

A New York physician found his missing \$400 diamond scarfpin in a patient's hair net. You might almost call this a trained "rat."

Says a small advertisement: "To let, four rooms and bath, complete housekeeping apartment, suitable for physician with two large storerooms." It might likewise appeal to some doctor with a bay window.

Ingenious, Anyway.

Senator Caraway was talking about the tariff war between Spain and France.

"These two nations are hurting each other so ingeniously through their tariffs," he said, "that it reminds me of little Willie.

"Little Willie pointed at his sister's sweetheart, Mr. Jones.

"Mr. Jones kicked me yesterday," he snarled, "but I got even with him, you bet your life. I mixt up quinine with my sister's face powder."—*Arkansas Utility News*.

Extracts from Letters to the Veterans' Bureau.

Just a line to let you know that I am a widow and four children.

Previous to his departure we were married to a Justice of the Piece.

He was inducted into the surface.

I have a four months' old baby and he is my only support.

I was discharged for a goiter which I was sent home on.

I did not know my husband had a middle name and if he did, I don't think it was none.

Your relationship to him? Answer: Just a mere aunt and a few cousins.

You ask for allotment number. I have four boys and two girls.

Please return my marriage certificate, baby hasn't eaten in three days.

Both sides of our parents are old and poor.

I am writing to ask you why I have not received my elopement. His money was kept from him for the elopement which I never received.

I have already written to Mr. Headquarters and received no reply and if I don't get one I am going to write to Uncle Sam himself.

I ain't received no pay since my husband went away from nowhere.

We have your letter. I am his grandfather and grandmother. He was born and brought up according to your instructions.

You have changed my little boy to a girl. Will it make any difference?

Please let me know if John has put in an application for a wife and child.

You have taken away my man to fite and he was the best I ever had. Now you will have to keep me or who in the Hell will if you don't?

Please send me a wife's form.

—*Infantry Journal*.

Prudence.

In Georgia they tell of a country minister, the Reverend Tyler Bliss, who was driving a spirited horse through a village, when he overtook the local physician, who happened to be on foot, and invited him in for a lift.

Ten minutes later the horse bolted, tipped over the carriage and spilled both men. The doctor rose to his feet and felt himself over to see whether he was injured. Then he turned angrily toward the clergyman.

"See here," he demanded, "What do you mean by inviting me to ride behind an animal like that?"

"Well," replied the minister mildly, "it was lucky that this time there were no bones broken. But I always like to have a doctor with me when I drive that horse."—*The American Legion Weekly*.

Strenuous Recovery.

Grandpa Johnston, father of Clyde Johnston, is recovering from his accident by falling from his scaffold last week, breaking and fracturing several ribs.—*Yakima Valley Optimist*.

Chance for a Turk.

For Sale—A good place to live and have 5 families. Very nicely situated, always rented, good investment, don't let it go by.—*Classified ad in the Watertown Times*.

County Societies

MEDICAL SOCIETY OF THE COUNTY OF ALLEGANY.

ANNUAL MEETING, BELMONT, N. Y., THURSDAY,
OCTOBER 12, 1922.

The meeting was called to order in the Hotel Belmont.

The reports of the officers were presented; the following officers were elected for 1923: President, Lloyd S. Benedict, Wellsville; Vice-President, Lyman C. Lewis, Belmont; Secretary-Treasurer, Chauncey R. Bowen, Almond; Censors, Horace L. Hulett, Francis H. Miller, Francis E. Comstock, George W. Roos, and Charles M. Stewart; Delegate to State Society, Chauncey R. Bowen, Almond; Chairman, Committee on Legislation, Lyman C. Lewis, Belmont.

A dinner was served, after which the following interesting papers were presented:

"Anesthesia," Lloyd S. Benedict, M.D., Wellsville.

"Some Phases of Gall Bladder Surgery," William D. Johnson, M.D., Batavia.

BRONX COUNTY MEDICAL SOCIETY.

ANNUAL MEETING, DECEMBER 20, 1922

The meeting was called to order at 9 P. M. at the Bronx Castle Hall, the President, Dr. Zigler, in the chair. About one hundred and fifty members were present.

The minutes of the last regular meeting and of the Comitia Minora were read and approved.

The election of officers for the year 1923 was then declared in order and the President appointed Drs. Sheinman, Glucksman and Sidney Cohn as Tellers.

The President announced that Dr. Joseph H. Gettinger had declined the nomination for member of the Board of Censors.

The following new members were elected: Drs. Paul W. Casson, Emanuel Donheiser, Elsie E. Ewer, William Finkelstein, David Ide, Henry Minsky, Louis Nagorsky, Isidor Palais, Maurice Joel Stone, and Mendes S. Wechsler.

Reports for the year 1922 were presented by the Treasurer, Secretary, Censors, Counsel, and the various committees of the Society.

The proposed amendment to Section 11 of the By-Laws, under Committees, to add "and a Library Committee of five members," was placed before the Society for action. Dr. Jacobs moved that the Library Committee consist of seven members. Dr. Rost moved that the members of the Committee serve for three years. Dr. Jacobs moved that the first Library Committee be appointed as follows: Three for three years, three for two years, and one for one year. The original amendment with the above amendments was then put to vote and was carried.

The Secretary introduced the following resolutions:

"The Bronx County Medical Society has sustained a severe loss in the death of its honored associate, Dr. Moses M. Feinberg;

"RESOLVED, That the Bronx County Medical Society record the sense of its loss in the death of Dr. Feinberg and that a minute thereof be placed on the records of the Society; and be it

"FURTHER RESOLVED, That a copy of these Resolutions be transmitted to the family of our departed member."

Moved, seconded, and carried that the above Resolutions be adopted.

Dr. Landsman also introduced the following resolutions:

"The Bronx County Medical Society has sustained a severe loss in the death of its honored associate, Dr. Emanuel Danzi;

"RESOLVED, That the Bronx County Medical Society record the sense of its loss in the death of Dr. Danzi and that a minute thereof be placed on the records of the Society; and be it

"FURTHER RESOLVED, That a copy of these Resolutions be transmitted to the family of our departed member."

Moved, seconded and carried that the above Resolutions be adopted.

The President, Dr. Zigler, thanked the members for their co-operation during the past year. He also thanked the Comitia Minora for its splendid work as well as the Committees, particularly the Committees on Legislation, Medical Economics, Public Health and Publicity, and laid special stress upon the fine work of Dr. Cunniffe as Chairman of the Committee on Legislation. The President also gave an outline of the work of the past year.

Dr. Rost moved that the incoming President have an announcement printed which shall be circulated amongst all the physicians of the Bronx, members and non-members, stating the advantages of joining the Bronx County Medical Society. Motion seconded and carried.

The President then declared the Polls closed and the Tellers presented the following report:

Total number of ballots cast.....	112
Void ballots	2

For Board of Censors: Philip Eichler, 64; I. H. Goldberger, 45; Samuel F. Weitzner, 43; William Klein, 41; Louis A. Friedman, 37; Milton J. Goodfriend, 28; William L. Rost, 27.

The following were declared elected for 1923: President, Joshua H. Leiner; First Vice-President, Edward C. Podvin; Second Vice-President, Simon M. Jacobs; Secretary, I. J. Landsman; Treasurer, J. Adlai Keller; Board of Censors, Philip Eichler, I. H. Goldberger, Samuel F. Weitzner; Delegates, J. Lewis Amster, Cornelius J. Egan, Edmund E. Specht, Maximilian Zigler; Alternates, Milton R. Bookman, Sidney Cohn, Robert Goldberg, Vincent S. Hayward, Jacob Juskowitz, Nicholas Lukin.

Dr. Keller moved that the Tellers be discharged with a vote of thanks. Seconded and carried.

SCIENTIFIC PROGRAM.

"Facts and Fallacies in Artificial Infant Feeding," Solomon Horwitt, M.D.

Discussed by Drs. Mark S. Reuben, Haas, Blauner, Rost, Popper, Goldberger and Luttinger. Dr. Horwitt closed the discussion.

"Treatment of Fractures by Orthopedic Methods (from the Surgical Service of Fordham Hospital)," Samuel W. Boorstein, M.D., I. J. Landsman, M.D.

Discussed by Drs. Henry Roth, Alexander Nicoll, Cunniffe, Amster, William Klein, Jacob Grossman and Elsie Fox. The discussion was closed by Dr. Boorstein.

CHENANGO COUNTY MEDICAL SOCIETY.

ANNUAL MEETING, NORWICH, N. Y., TUESDAY,
DECEMBER 12, 1922.

The business session was held at 11 A. M., and the following officers were elected for 1923: President, Fred S. Heimer, Mt. Upton; Vice-President, William E. Hartigan, Norwich; Secretary-Treasurer, John H. Stewart, Norwich; Delegate to State Society, George DeB. Johnson, Oxford; Chairman Legislative Committee, Lee C. Van Wagner, New Berlin.

SCIENTIFIC SESSION.

President's Address, J. Mott Crumb, M.D., South Otselic.

"Cancer from the Viewpoint of the General Practitioner," Eugene A. Hammond, M.D., New Berlin.
"Treatment of Cancer with Electricity," John H. Burch, M.D., Syracuse.
"The Prevention and Treatment of Cancer," John M. Swan, M.D., Rochester.

MEDICAL SOCIETY OF THE COUNTY OF ERIE.
ANNUAL MEETING, DECEMBER 18, 1922.

The following officers were elected for 1923: President, Dr. Charles E. Abbott, Buffalo; First Vice-President, Dr. Marshall Clinton, Buffalo; Second Vice-President, Dr. Charles R. Borzilleri, Buffalo; Secretary, Dr. L. F. Anderson, Buffalo; Treasurer, Dr. Charles A. Bentz; Chairman, Committee on Legislation, Dr. George R. Critchlow; Chairman, Committee on Public Health, Dr. James H. Borrell; Chairman, Committee on Membership, Dr. Arthur J. Burkel; Chairman, Committee on Economics, Dr. Augustus W. Hengerer; Censors, Dr. Charles W. Bethune, Dr. Francis E. Fronczak, Dr. Michael A. Sullivan, Dr. Abram L. Weil, Dr. Carlton E. Wertz; Delegates, Medical Society of State of New York, Dr. James A. Gardner, Dr. Earl P. Lothrop, Dr. James J. Mooney, Dr. Francis M. O'Gorman, Dr. Irving W. Potter.

MEDICAL SOCIETY OF THE COUNTY OF
MONROE.

ANNUAL MEETING AT ROCHESTER, N. Y.,
TUESDAY, DECEMBER 19, 1922.

The Secretary read the minutes of the Comitia Minora and of the last meeting, which were approved as read.

The election of officers being in order, the President appointed Drs. Samuel H. Rosenthal and Edward L. Hanes tellers.

Drs. Henry Ward Williams, William Michael Callahan, Joseph B. Loder, and Stewart H. Gibb were elected to membership.

Dr. I. E. Harris presented the annual report of the Treasurer.

The President appointed Drs. Wolcott and Herriman to audit the Treasurer's books.

Dr. Dow reported for a special committee that the Department of Health will record births occurring previous to 1880.

The Secretary read a letter from the Secretary of the State Society explaining delay of receipt of notices of meeting of 7th District Branch at Newark.

Auditing Committee reported the Treasurer's books to be in perfect condition.

The Tellers reported the following officers elected for 1923: President, James Murray Flynn, Rochester; Vice-President, Floyd Stone Winslow, Rochester; Treasurer, Willard Hall Veeder, Rochester; Secretary, Warren Wooden, Rochester; Delegates to State Society, Owen E. Jones, Rochester, James P. Brady, Rochester, Floyd Stone Winslow, Rochester; Alternates, J. R. Booth, G. H. Gage, W. S. Hartigian; Censors, E. H. Howard, O. E. Jones, J. P. Brady, G. H. Gage, C. O. Boswell; Milk Commission, two for two years, A. S. Miller, J. W. McGill, C. L. Hinchler to fill unexpired term of Dr. J. R. Culkin.

Dr. C. O. Boswell delivered President's address, "Quackery."

Dr. Le Seur of Genesee County spoke urging members to support the State Society.

Dr. Vander Veer spoke on "Legislative" program.

Dr. Booth, President of State Society, spoke briefly on State Society activities.

Moved, seconded and carried that rising vote of thanks be extended to Drs. Booth and Vander Veer.

MEDICAL SOCIETY OF THE COUNTY OF
NASSAU

ANNUAL MEETING, MINEOLA, N. Y., TUESDAY,
NOVEMBER 28, 1922.

The meeting was held at the Nassau County Court House.

Communications were read from Dr. John W. Durkee, in acknowledgement of his election to honorary membership, and from Dr. Richard Derby in appreciation of the letter of sympathy sent to him on the occasion of the death of his young son. There was one application for membership, which was referred to the Board of Censors.

The application of Dr. David S. Dooman for membership was reported favorably by the Censors, and Dr. Dooman was unanimously elected.

The Secretary reported that the membership of the Society is now eighty-one; that there had been one death during the year, Dr. R. F. B. Seaman of Locust Valley; one member transferred to Westchester County; one resignation; and one member removed, his present location being unknown.

The Treasurer reported a balance of \$78.36 in the treasury, with all bills paid to date.

The President, Dr. Martin, Rockville Center, reported that the action of the Society taken at the semi-annual meeting, in reference to a county Health System, had been duly reported to the Commission on County Government, and that the recommendation, made at the same meeting, in regard to the establishment of a county contagious disease hospital, had been reported to the Board of Supervisors; but that nothing further had been heard in regard to either matter.

Dr. George A. Newton, Chairman, Committee on Legislation, made a brief verbal report and mentioned that a meeting had been called of the chairmen of the committees on legislation of the County Medical Societies of the State, to be held at Syracuse on December 2. After some consideration of matters to be discussed at that meeting, Dr. Newton was instructed to use his best judgment as to his position in regard to these matters. It was also decided to pay the expenses of Dr. Newton in attending this important meeting.

An amendment to the by-laws, increasing the annual dues from three to ten dollars that funds may be provided for printing the Year Book, printing by-laws, and paying the expenses of the Committee on Legislation, proposed at the semi-annual meeting, was unanimously adopted to take effect January 1, 1923.

The address of the retiring President contained many valuable suggestions for the good of the Society and an amendment to the by-laws was proposed, to be acted upon at the first quarterly meeting of the coming year, increasing the number of meetings, so that there may be a meeting every month, except through the summer.

The following officers were elected for 1923: President, Benjamin W. Seaman, Hempstead; Vice-President, Richard Derby, Oyster Bay; Secretary-Treasurer, James S. Cooley, Mineola; Censors, Louis A. Van Kleeck, E. Raymond Schilling, James W. McChesney, Alfred H. Parsons, Everett C. Jessup; Historian, Walter Lindsay; Delegates to State Society for 2 years, George A. Newton, Freeport, for 1 year, Roy D. Grimmer, Hempstead; to the Associated Physicians of Long Island, Henry B. Smith.

THE ONONDAGA MEDICAL SOCIETY.

ANNUAL MEETING, SYRACUSE, N. Y., TUESDAY,
DECEMBER 12, 1922.

The meeting was called to order at The Mizpah, and after the reports of the Committees were presented, the following officers were elected for 1923: President, Herman G. Weiskotten, Syracuse; Vice-President,

Christopher S. Williams, La Fayette; Secretary, Philip Cooper, Syracuse; Treasurer, Brewster C. Doust, Syracuse; Censors, Clyde O. Barney and Brooks W. McCuen; Delegate to State Society, William L. Wallace, Syracuse; Alternate, Frederick W. Sears, Syracuse.

SCIENTIFIC SESSION.

"Problems of the Rural Practitioner," George Hawley, M.D., Baldwinsville.

"Proposed Legislation Affecting the State Medical Society," James N. Vander Veer, M.D., Albany.

Discussion opened by William L. Wallace, M.D.

MEDICAL SOCIETY OF THE COUNTY OF ORANGE.

ANNUAL MEETING, GOSHEN, DECEMBER 6, 1922.

The meeting was called to order in the Court House by the President, Dr. A. W. Preston, at 2:15 P. M. The following responded to roll-call: A. W. Preston, W. B. Andrews, H. J. Shelley, M. A. Stivers, W. H. Snyder, A. B. Chappell, R. Corder, J. I. Cotter, W. W. Davis, L. B. Dawley, M. H. DuBois, J. C. Donovan, W. J. Hicks, J. B. Hulett, L. Morgans, R. L. McGeoch, W. I. Purdy, A. C. Santee, F. W. Seward, Jr., S. L. Truex, E. C. Waterbury, E. C. Thompson, R. W. Thompson, E. VanAmburg, R. C. Woodman, F. W. Laidlaw, A. W. Beck, H. F. Pohlman, E. M. Schultz.

Reports of the Comitia Minora, Secretary and Treasurer were read and accepted.

The minutes of the previous meeting were read and approved.

The following officers were elected for the ensuing year: President, W. B. Andrews; Vice-President, A. B. Chappell; Secretary-Treasurer, H. J. Shelley; Censors, M. A. Stivers and W. H. Snyder, J. M. Bernhard and E. G. Cuddeback; Delegate to State Society, A. W. Preston; Alternate, M. A. Stivers.

The following correspondence relating to Dr. Floyd H. Cook, was read and ordered spread upon the minutes:

September 12, 1921.

MESSRS. WHITESIDE & STRYKER,
Counsel, Medical Society, State of New York,
GENTLEMEN:

Dr. Floyd H. Cook, formerly of this City, has requested us to write you with reference to a certain action now impending in the Supreme Court in this County in which charges of malpractice are made against him and in which he says that he is protected by the Medical Society through you as their attorneys.

Some time since Dr. Cook brought an action against a man by the name of John Keating to recover for his services in an operation for the removal of an eye which had been injured in an accident. The bill was never paid and it was necessary for Dr. Cook to bring the action in order to enforce its payment. Keating, however, set up a counterclaim for damages for alleged malpractice in the operation and the treatment of the eye, and it is with reference to this counterclaim that we are writing you.

Will you please let us know what is the proper procedure for us to pursue in this matter as Dr. Cook states that he is protected in such action, as we have stated above, by your Society?

Very truly yours,

(Signed) WATTS, OAKES & BRIGHT.

September 20, 1921.

WATTS, OAKES & BRIGHT, ESQs.,

DEAR SIRS:

Replying to your letter of the 12th instant with reference to the counterclaim interposed by the defendant in an action instituted by Dr. Floyd H. Cook, formerly

of your city, we have been informed by the office of the Secretary of the State Society that Dr. Cook has removed from the State of New York and that while he has paid his dues in the County Society for the year 1920 and continues as a member of the Society until the end of the year 1921, that he has not paid his dues in the Society for this year and is therefore not entitled to malpractice defense unless such dues are paid in July, 1921. However, should Dr. Cook desire to avail himself of the malpractice defense afforded by the Society, he could do so by paying up the arrearage in 1921 dues and he would then be entitled to our services in connection with the defense of the counterclaim based upon alleged malpractice interposed in his action against a patient.

Very truly yours,

(Signed) GEORGE W. WHITESIDE, Counsel.

October 10, 1921.

MESSRS. WHITESIDE & STRYKER,
GENTLEMEN:

Replying to your letter of the 20th ultimo with reference to the malpractice counterclaim against Dr. Floyd H. Cook, we beg to advise you that this counterclaim arose by reason of an operation in November, 1919, and he does not understand why he is not entitled to protection for the years when he paid his dues as a member of your society. He can no longer belong to the society in this state as we understand he has taken a withdrawal and is now practicing in Ohio. He has asked us to write you upon the subject and find out why your society refuses to carry out its obligation to him for matters arising while he was a member in good standing.

Very truly yours,

(Signed) WATTS, OAKES & BRIGHT.

October 14, 1921.

WATTS, OAKES & BRIGHT,
GENTLEMEN:

We beg to acknowledge receipt of your letter of October 10 in regard to the case against Dr. Floyd H. Cook.

If Dr. Cook has taken a withdrawal as stated by you and is now practicing in Ohio and was in good standing, has not been dropped for non-payment of dues or otherwise forfeited his rights of membership, we agree with you that he is entitled to protection for the years when he paid his dues as a member of the Society.

These facts were not known to us when we wrote you last on this subject, so that if you desire, you may advise Dr. Cook that our services are at his disposal should he desire the same in the defense of his counterclaim based upon allegations of malpractice.

Very truly yours,

(Signed) GEORGE W. WHITESIDE, Counsel.

October 17, 1921.

GEORGE W. WHITESIDE, ESQ.,

DEAR SIR:

Your letter of the 14th instant with reference to Dr. Cook's availing himself of your services in the defense of the counterclaim interposed in his action against Mr. Keating has been received. Owing to your delay in offering your services in that respect it was necessary for us to proceed with the trial of the action and the same resulted favorably to Dr. Cook. Under the circumstances we feel that the Society which you represent should pay to Dr. Cook his reasonable counsel fees in the defense of that action which you at first refused to defend and which it was necessary for us to proceed with owing to the fact that the case was then upon

the Calendar and was reached before we received your letter of the 14th instant.

We should be glad to hear from you upon the subject.

Very truly yours,
(Signed) WATTS, OAKES & BRIGHT.

October 18, 1921.

WATTS, OAKES & BRIGHT, ESQs.,

GENTLEMEN:

We have your letter of October 17. This is the first time that we were informed that the case was on the calendar for trial. If Dr. Cook was desirous of procuring our services, we should have been advised when the suit was first started and not at the eleventh hour.

Furthermore, your first letter did not disclose to us sufficient facts upon which to determine whether he was entitled to defense or not. It was only in a subsequent letter that these facts were disclosed. Immediately upon receiving that letter, and having that information available, we tendered you our services, despite that fact that we would have been within our rights because of the delay in coming in at so late a stage of the case.

Under these circumstances, we do not see how Dr. Cook can expect us to pay the reasonable counsel fees which you suggest should be paid in your letter. Under all of the circumstances, do you not think that our position, therefore, is sound?

Sincerely yours,
(Signed) GEORGE W. WHITESIDE, Counsel.

October 20, 1921.

GEORGE W. WHITESIDE, ESQ.,

DEAR SIR:

We have your letter of the 18th instant, in which you ask us whether we do not think your position is sound. We have never understood why, under the circumstances of this case, you refused in your letter of September 20th, to undertake the defense of Dr. Cook in the malpractice charges. The Secretary of the State Society had all the information that was requisite with reference to Dr. Cook's removal from the State of New York and we understood that a withdrawal card had been issued to him by that organization. It was necessary to communicate your letter of the 20th to Dr. Cook who was in Akron, Ohio, and in the meantime the case was moving up on the calendar. We did not receive your letter offering your services until after the case was actually tried and we were justified, we believe, in assuming that you would not defend. We are not asking you to pay the counsel fees but we believe that the Medical Society of which you are the General Counsel should pay us.

Very truly yours,
(Signed) WATTS, OAKES & BRIGHT.

October 21, 1921.

WATTS, OAKES & BRIGHT, ESQs.,

DEAR SIRs:

I wish to acknowledge receipt of your letter of October 20 in regard to the matter of Dr. Cook. We have no information as to when the cause of action, also the counterclaim against Dr. Cook arose, and when it was first placed upon the calendar for trial.

Apparently, we were not informed of the matter until it was about to be tried, and then did not understand that the trial would take place before my second letter to you would reach you.

We would be pleased to be informed as to these facts. If it appears that Dr. Cook waited until the case was about to be reached before asking the assistance of the Society, of which I am counsel, and had

therefore retained you as his attorneys, it would seem to me that he had elected to have your services at that time in lieu of mine, and that his subsequent desire to avail himself of my services in resisting the counterclaim was not communicated to me in sufficient time for me to act.

Under these circumstances, I do not believe that either I or the Medical Society should be put to any expense in the matter.

Furthermore, I am not informed as to whether or not the counterclaim was actually tried out and it would only be upon this phase of the case that we would have any interest.

I trust that you will understand my position in this matter and that the same will be to your satisfaction.

Sincerely yours,
GEORGE W. WHITESIDE, Counsel.

March 7, 1922.

DEAR DR. SHELLEY:

Enclosed please find letter which I wish presented to your Society. Will you kindly forward me address of proper State official to take matter up with as I intend bringing up matter at your next State meeting.

Very truly yours,
(Signed) FLOYD H. COOK.

Akron, O., March 7, 1922.

H. J. SHELLEY, Secretary,
Orange County Medical Society,

DEAR SIR:

I wish to enter a protest to the ruling made by the Counsel to the New York State Medical Society denying me a defense in a countersuit brought against me by one, Keating, and tried in the Supreme Court at Goshen, New York, in October, 1921. The case was thrown out of court as Keating established no case. Nevertheless, I was put to considerable expense to defend same and feel that your Counsel did me an injustice which should be investigated, and rectified.

The services rendered which instigated the case were given in November, 1919, in Middletown, New York, at which time I was a member of the New York State Medical Society. The litigation relative to the suit was started in 1920, at which time I was also a member of the New York State Society. The case was tried in October, 1921, at which time I was practicing in Akron, Ohio, and was a member of the Ohio State Medical Society.

Your counsel ruled that I was not a member of the New York State Society and therefore was not entitled to protection.

I am of the impression that I did the Orange County Society a favor by coming to Goshen to fight this case, instead of settling it out of court as I could have done at much less expense, as I believe a vigorous defense in cases of this type greatly discourages the practice of bringing these suits in court.

As an ex-member of the Orange County and State Societies, and an active member of the Ohio State Society, I ask that this matter be taken up by proper authorities and determine if it is the policy of your Counsel to furnish a defense when needed by a member or evade same by an excuse such as one might expect from a cheap Casualty Company.

Very truly yours,
(Signed) FLOYD H. COOK.

The Medical Society of the County of Orange, at a meeting held in Middletown, April 4, 1922, adopted the following resolutions:

WHEREAS: We believe that the action of the Councilor of the Medical Society, State of New York, in ruling that Dr. Floyd H. Cook, a former member of the State and County Societies, was not entitled to the protection afforded by the Medical Society of the State of New York was unjust and illegal, and as

The services for which the suit was brought against Dr. Cook were rendered while he was a member in good standing of the Medical Society of the County of Orange, and of the Medical Society, State of New York,

THEREFORE, be it resolved,

THAT the delegates from the MEDICAL SOCIETY COUNTY OF ORANGE, to the Medical Society, State of New York, be instructed to bring this matter before the House of Delegates, and to use their best endeavors to have such action taken as necessary to recompense Dr. Cook for the expense of legal services for defending the suit.

(Signed) H. J. SHELLEY, *Secretary*.

July 1, 1922.

DR. HILTON J. SHELLEY, *Secretary*,
The Medical Society of the County of Orange,
MY DEAR DR. SHELLEY:

The House of Delegates of the Medical Society of the State of New York at a meeting held on April 17, 1922, referred the resolutions of the Medical Society of the County of Orange in regard to Dr. Floyd H. Cook to the Board of Censors for action.

The Board of Censors, after careful consideration of the communication from the Medical Society of the County of Orange, passed the following resolutions:

WHEREAS, there was brought to this body by the Reference Committee of the House of Delegates, session in Albany April 17, 1922, the resolution of the Medical Society of the County of Orange, in which resolution it was stated that the counsel of the State Society had ruled that Dr. Floyd H. Cook, a former member of the Orange County Medical Society, was not entitled to the protection afforded in a malpractice suit and that the ruling was unjust and illegal and recommending that the legal expense to which Dr. Cook was put in defending the suit should be paid by the State Society; and

WHEREAS, it appears upon an examination of the whole matter that Dr. Cook never personally made application for malpractice defense by complying with the resolution respecting such application and that the attorneys engaged by him did not give timely notice of the date when the cause of action arose or the probable date of trial of the same to the counsel of the State Society; and

WHEREAS, the counsel of the State Society when fully informed of the facts made offer of his services; and

WHEREAS, it appears that the action of the counsel of the State Society was proper in all respects in said matter and the strictures contained in the resolution of the Medical Society of the County of Orange with respect to his ruling are not warranted, therefore, be it

RESOLVED that the Board of Censors sustain the action of the counsel in all respects in said matter and that a copy of its action be reported for publication in the Medical Journal of the State Medical Society, and likewise a copy be sent to the Medical Society of the County of Orange, together with a copy of the correspondence between counsel of the State Society and the attorneys for Dr. Cook, and it be recommended to the Medical Society of the County of Orange that upon consideration of all these facts, that they take such action as they deem proper to remove the strictures

upon counsel of the State Society contained in their original resolution.

Yours very truly,

(Signed) EDWARD LIVINGSTON HUNT,
Secretary.

Medical Society of the State of New York.

A motion was made by Dr. Corder, seconded by Dr. Hulett that the Secretary send copies of all of the correspondence in the Cook case to the State Journal with the request that it be published at once. An amendment was made by Dr. Snyder, and accepted by Dr. Corder, that the Secretary send a report of the meeting to the State Journal with a request for its publication. The motion and amendment were adopted.

A motion was made by Dr. E. C. Thompson and seconded by Dr. Hulett that the Cook case be again referred to the Board of Censors with power to adjust with the State Medical Society and to report at the April meeting. The motion was carried.

The report of the Committee on Legislation was received and adopted.

The address of the retiring President, Dr. A. W. Preston, "The County Society a Factor in Medical Education" was exhaustive, and pointed the way in a very lucid manner to a great work that the County Society can do.

An excellent paper by Dr. Seward Erdman of New York City held the attention of the members, and at its conclusion, Dr. Erdman was tendered a vote of thanks for his paper.

MEDICAL SOCIETY OF THE COUNTY OF QUEENS

The First Annual Dinner of the Medical Society of the County of Queens, on December 18, 1922, was a brilliant success. A demonstration of an actual getting together of Physicians and elected representatives of the people. Queens set a smart pace for other county organizations when she assembled a group of three hundred people composed of Physicians and their wives and Borough, County, State and National legislators. The Forest Hills Inn was the scene of this remarkable gathering and served a well-appointed dinner.

Dr. Thomas Chalmers presided and introduced as speakers, Dr. William C. Woodward, of Chicago, Executive Secretary of the Legislative Bureau of the American Medical Association; Hon. Royal S. Copeland, United States Senator-elect; Dr. Arthur W. Booth, President of the State Society; Hon. Maurice Connolly, President of the Borough of Queens, and Dr. Warren Coleman. Hon. Frank Giorgio, State Senator-elect, telegraphed his regret that illness prevented his attendance. Among the other guests were: Hon. John J. Kindred, M.D.; Hon. D. J. O'Connell, Edward Livingston Hunt, M.D., Secretary Medical Society of the State of New York; Orrin S. Wightman, M.D.; James S. Cooley, M.D.; Arthur D. Jaques, M.D., and Frank D. Jennings, M.D.

Dr. Chalmers reviewed the History of the Queens Society, showed the importance of legislation, and the influence of physicians in defense of Public Health. Projected a Medical centre for Queens in Kew Gardens, suggesting a home for the County Society with library and other club features. Dr. Woodward said the welfare of society, of state and county communities rested largely upon the physicians; that they are citizens and must care for public health and satisfactory legislation must be secured. Dr. Copeland spoke humorously of his election and very seriously about the responsibility of the physician to the State and promised to do everything in his power for the promotion of the cherished ideals of the profession. Dr. Booth spoke of the necessity of legislation, and said it was not the function of the Health Department to practice medicine. He hoped for

a real medical practice act providing common sense and common justice equally for the public and for the profession. Hon. Maurice Connolly, in a very witty speech paid his compliments to all doctors, particularly the family physician and promised his active and sympathetic "influence" in every way.

Dr. Warren Coleman discussed the Volstead Act and suggested the need of modifications. Assemblyman Alfred J. Kennedy promised to be a real legislator and to respond in every way to the wishes of the Queens physicians.

OTSEGO COUNTY MEDICAL SOCIETY.

ANNUAL MEETING, ONEONTA, N. Y., TUESDAY,
DECEMBER, 12, 1922.

The annual meeting of the Otsego County Medical Society was called to order in the Elks' Home.

There was the largest attendance for many years and the interest showed in the meeting was very satisfactory.

The following officers were elected for 1923: President, Ray D. Champlin, Oneonta; Vice-President, Charles W. Lanning, Cooperstown; Secretary, Arthur H. Brownell, Oneonta; Treasurer, Frank L. Winsor, Laurens; Censor, John W. Swanson; Delegate to State Society, Arthur H. Brownell; Alternate, Lloyd C. Warren; Chairman Legislative Committee, Julian C. Smith; Chairman Public Health Committee, Rupert W. Ford.

SCIENTIFIC SESSION.

President's address, Earle C. Winsor, M.D., Schenectady.

"Review of Recent Literature on Ductless Glands," David H. Mills, M.D., Oneonta.

"The State's Program of Maternity Care," Stuart B. Blakely, M.D., Binghamton.

"School Inspection of Children," Franklin W. Barrows, M.D., Albany.

The papers presented by Drs. Blakely and Barrows were of most intense interest to all present.

ROCKLAND COUNTY MEDICAL SOCIETY.

ANNUAL MEETING, NEW CITY, WEDNESDAY,
DECEMBER 6, 1922.

The annual meeting and banquet of the Society was well attended, thirty-one members and guests being present.

The following officers were elected for 1923: President, Ralph O. Clock, Pearl River; Vice-President, Royal F. Sengstacken, Suffern; Secretary, Robert R. Felter, Pearl River; Treasurer, Dean Miltimore, Nyack. Censors, Robert R. Felter, chairman, Pearl River; Merton J. Sanford, Suffern; Ralph DeBaun, Congers; M. J. Sullivan, Haverstraw, and John Sengstacken, Stony Point. Delegate to State Society, Charles D. Kline, Nyack; alternate, George A. Leitner, Piermont.

Drs. Stephen R. Monteith, Alexander N. Selman, and George W. Unsworth, were elected to membership.

SENECA COUNTY MEDICAL SOCIETY.

ANNUAL MEETING, WILLARD, N. Y., THURSDAY,
OCTOBER 12, 1922.

The meeting was called to order with the President, Thomas J. Currie, M.D., in the chair.

The minutes of the May meeting were read and adopted.

The following officers were elected for 1923: President, John F. Crosby, Seneca Falls; Vice-President, Charles S. Barnes, Waterloo; Secretary-Treasurer, William M. Follette, Seneca Falls; Delegate to State Society, Robert M. Elliott, Willard; Alternate, Ralph S. Pettibone, Willard; Censors, Frederick W. Lester,

Carroll B. Bacon and William H. Montgomery; Chairman of Legislative Committee, Frederick W. Lester; Chairman Anti-Cancer Committee, Robert Knight.

Adolphe Letellier, M.D., Seneca Falls, gave a report of the meeting of the Seventh District Branch held at Newark, N. Y., October 4, 1922.

The report of Dr. Lester, Chairman of the Legislative Committee, was discussed by Drs. Letellier, McWayne and Crance.

A motion was made by Dr. Letellier that the Legislative Committee communicate with the Medical Defense Society of Seneca County, with the view of securing their co-operation in the prosecution of illegal practitioners of medicine in Seneca County. Carried.

A motion was made by Dr. Lester that the Secretary of the Society write one George B. Loehr residing at McDougal, Seneca County, evidence having been presented to the Society of his illegal practice, that such practice must cease or he will be prosecuted. Motion seconded and carried.

The meeting then adjourned for dinner, after which the following papers were presented:

"Endocrine Glands," Thomas J. Currie, M.D., Willard.

"Value of Cystoscopic Examination in Cases Presenting Haematuria and Other Urological Symptoms," Albert M. Crance, M.D., Geneva.

After a rising vote of thanks to the Hospital Staff for the generosity in entertaining the Seneca County Medical Society, the meeting adjourned to meet in Seneca Falls in May, 1923.

THE MEDICAL SOCIETY OF THE COUNTY OF TIOGA.

ANNUAL MEETING, HELD IN OWEGO, DECEMBER 5,
1922 AT 1:30 P. M.

The meeting was called to order by the President, Dr. R. B. Eastman.

Members present: Drs. E. E. Bauer, E. S. Beck and L. A. Walker, of Owego; Drs. F. A. Carpenter and J. T. Tucker, of Waverly; Drs. G. M. Cady and LeR. J. Osborne of Nichols; Dr. A. M. Fisher of Spencer; Dr. J. E. Leonard of Harford Mills; Dr. H. L. Knapp of Newark Valley; Dr. R. D. Eastman of Berkshire. Visitors: Dr. Wm. A. Howe of Albany; Dr. Reeve B. Howland of Elmira; Dr. M. A. Dumond of Ithaca; Dr. K. F. Rubert and Dr. Capron of Owego; and Dr. Canfield of Candor.

The following officers were elected for 1923: President, R. B. Eastman, M.D., Berkshire; Vice-President, G. S. Carpenter, M.D., Waverly; Secretary-Treasurer, W. A. Moulton, M.D., Candor.

Dr. Wm. A. Howe, of the State Education Department was present and spoke on "Medical Inspection of Schools."

Dr. Reeve B. Howland of Elmira was present and spoke about the new Department of Maternity, Infancy and Child Hygiene of the State Department of Health.

Dr. Dumond of Ithaca demonstrated the administration of Neosalvarsan and gave a short talk on syphilis.

THE MEDICAL SOCIETY OF THE COUNTY OF ULSTER.

ANNUAL MEETING, KINGSTON, N. Y., TUESDAY,
DECEMBER 19, 1922.

The meeting was called to order at the Wiltwyck Inn, and the following officers were elected for 1923: President, Francis B. Quinlan, Kingston; Vice-President, William J. Cranston, Kingston; Secretary, Orlando DuB. Ingalls, Kingston; Treasurer, E. E. Norwood, Kingston; Delegate to State Society, Alexander A. Stern, Kingston; Alternate, Frank L. Eastman, Kings-

ton; Censors, Mark O'Meara, Frank A. Johnston, James Krom, Ernest E. Billings and James R. Nelson.

SCIENTIFIC SESSION.

Annual address, Frank L. Eastman, M.D., Kingston.
 "Blood Diseases," Fred H. Voss, M.D., Gardiner.
 "Diphtheria," Ernest E. Billings, M.D., Kingston.
 "Nervous Diseases," Aaron G. Baldwin, M.D., New Paltz.

WAYNE COUNTY MEDICAL SOCIETY.

ANNUAL MEETING, LYONS, N. Y., TUESDAY,
 DECEMBER 12, 1922.

The meeting was called to order at 11:30 A. M. by the President.

There were seventeen members and two visitors present.

The minutes of the preceding meeting were read and approved as read.

The following officers were elected for 1923: President, James R. Sanford, Newark; Vice-President, Robert S. Carr, Williamson; Secretary and Treasurer, D. F. Johnson, Newark; Delegate to State Society, Ethan A. Nevin, Newark; Alternate, Lucius H. Smith, Palmyra; Censors, Herman L. Chase, Myron E. Carmer and Augustus A. Young; Legislative Committee, Ralph Sheldon, Lucius H. Smith and John F. Myers; Committee on Public Health, George D. Winchell, Dwight F. Johnson, Reuben A. Reeves, Charles H. Bennett and John Van Doorn.

A communication from the State Department Division of Infant Hygiene was read, suggesting a meeting for the discussion of the regional consultants' co-operation with the medical profession. The matter was left with the President.

Dr. Nevin, Chairman of the Legislative Committee, gave a report of the meeting of the chairmen of County Legislative Committees held at Syracuse.

Moved, seconded, and carried that: It is the sense of this Society that there should be no further registration of physicians, but the State and County Societies should see to the enforcement of existing laws.

Moved, seconded, and carried that: This Society is opposed to "Paid clinics" as planned by the State Department of Health.

Moved, seconded, and carried that: It is the sense of this Society that we are opposed to legalizing any cult for the practice of medicine.

The Secretary presented his annual report, which showed that the Society was in an active and sound financial condition, with a modest sum of money in the treasury and no outstanding obligations.

Moved, seconded, and carried that the report be accepted.

Moved, seconded, and carried that the Chairman of the Legislative Committee be authorized to use of the funds of the Society a sum not to exceed \$25.00 to co-operate with the Chairman of the Legislative Committee of the State Society.

Moved, seconded, and carried that a committee with Dr. Ralph Sheldon as chairman be appointed to arrange for the centennial celebration of the Society. The other members appointed were Drs. James R. Sanford and Ethan A. Nevin.

Luncheon was served at the Hotel Wayne.

The President delivered an address which was ordered incorporated in the minutes of the meeting.

Dr. G. Kirby Collier, Rochester, read a paper on "Brain Tumors." The general discussion which followed brought forth many interesting questions.

Dr. W. S. Thomas, Clifton Springs, gave a discussion of the pathology of brain tumors and exhibited a number of specimens.

Dr. Ralph Sheldon, Lyons, reported a case of acetanilid poisoning, which led to a general discussion of drug idiosyncrasy.

Books Received

AN INTRODUCTION TO THE PRACTICE OF PREVENTIVE MEDICINE. By J. G. FITZGERALD, M.D., F.R.S.C., Professor of Hygiene and Preventive Medicine and Director Connaught Antitoxin Laboratories, University of Toronto, assisted by PETER GILLESPIE, M.Sc., C.E., M.E.I.C., Professor of Applied Mechanics, University of Toronto, and H. M. LANCASTER, B.A.Sc., Director of Division of Laboratories, Provincial Board of Health, Ontario, and Demonstrator in Sanitary Chemistry, Department of Hygiene and Preventive Medicine, University of Toronto; and chapter by ANDREW HUNTER, M.A., M.B., F.R.C.S., J. G. CUNNINGHAM, B.A., M.D., D.P.H., and R. M. HUTTON, with appendix articles by Various Contributors. C. V. Mosby Co., St. Louis, 1922. Price, \$7.50.

REGIONAL ANESTHESIA. By GASTON LABAT, D.D., Lecturer on Regional Anesthesia at the New York University; Laureate, Faculty of Sciences, University of Montpellier; Laureate, Faculty of Medicine, University of Paris. With a foreword by WILLIAM J. MAYO, M.D. Octavo, 496 pages, 315 original illustrations. Phila. and London: W. B. Saunders Co., 1922. Cloth, \$7.00 net.

THE PROPAGANDA FOR REFORM IN PROPRIETARY MEDICINES, Vol. 2, 1922. Containing Reports of the Council on Pharmacy and Chemistry and contributions from the A. M. A. Chemical Laboratory and from *The Journal of the American Medical Association*. Cloth. Price, \$2.00. Pp. 603 with illustrations. Chicago: American Medical Association, 1922.

PHYSICAL EXERCISES FOR INVALIDS AND CONVALESCENTS. By EDWARD H. OCHSNER, B.S., M.D., F.A.C.S., President Illinois State Charities Commission; Attending Surgeon, Augusta Hospital, Chicago. Second Edition. C. V. Mosby Co., St. Louis, 1922. 75c.

CLINICAL SYMPTOMATOLOGY OF INTERNAL DISEASES, PART II, GENERALIZED PAIN. By PROF. DR. NORBERT ORTNER, Vienna. Only authorized Translation into English of the 2nd German Edition, by FRANCIS J. REBMAN, with an introduction by THOMAS WEBSTER EDGAR, M.D., New York. New York Medical Art Agency.

TEXT BOOK OF PEDIATRICS. Edited by PROFESSOR E. FEER, Director of the University Children's Clinic, Zurich. Translated and edited by JULIUS PARKER SEDGWICK, B.S., M.D., Professor of Pediatrics, University of Minnesota Medical School, and CARL AHRENDT SCHERER, M.D., F.A.C.P., Duluth, Minnesota. 262 Illustrations. First Edition in English. J. B. Lippincott Co., Phila. and London. Price \$8.50.

Book Reviews

THE SURGICAL CLINICS OF NORTH AMERICA. Volume 2, Number 4, August, 1922. Boston Number. W. B. Saunders Co., Philadelphia and London.

A large amount of valuable clinical material is crowded into this volume. Practically every part of the body is covered from the neck down. Dr. Lahey discusses tubercular glands of the neck, and spinal accessory paralysis. Dr. Whetmore reports two unusual cases of empyema, while Dr. Cutler reviews the subject of postoperative pulmonary complications. The subject of renal tuberculosis is presented by Dr. Quimby in the form of discussions with his students.

A variety of interesting abdominal conditions is discussed by a number of surgeons. Dr. Bottomley deals with injuries of the common duct, and their treatment. Dr. Lincoln Davis covers the subject of duodenal ulcer, and Dr. Richardson relates his exciting experience with

profuse postoperative hemorrhages following operations on the stomach. Dr. Jones offers a contribution on acute pancreatitis and gives a brief resume of the literature and the prevailing theories as to the etiology of this disease.

Dr. MacAusland describes his arthroplasty for ankylosis of the elbow. Dr. Harmer considers the subject of certain phases of the surgery of the hand. Dr. Cotton's report of over 100 cases of knee lesions and their treatment is extremely instructive.

Dr. Graves gives a very interesting clinic on Gynecology, and discusses the cases with his students. His thoughtful and considerate treatment of the patients adds charm to his scientific dissertation. His attitude toward cases of sterility, however, leaves one somewhat disappointed. Here, he is sentimental rather than scientific. Thus, he operates on some patients with sterility because "it is best to do something for the patient's peace of mind." And not a word about the examination of the husband.

HERMAN SILANN.

A PRACTICAL MEDICAL DICTIONARY. By THOMAS LATHROP STEDMAN, A.M., M.D., Editor "Twentieth Century Practice of Medicine" and the "Reference Handbook of the Medical Sciences"; Seventh Revised Edition. Illustrated. William Wood & Co., New York, 1922. Price \$7.00 net.

This dictionary of Dr. Stedman's is so well known as to need no introduction to the medical profession.

The first feature to attract the attention is the beautiful flexible binding of red leather, and then the handy thumb index. The phonetic pronunciation is unusually clearly set forth; there are fifteen plates, colored or plain, and there is an appendix of weights and measures, symbols, metric scales and chemical elements.

Not only does this book give the definition, spelling and pronunciation of medical words and terms, but, in addition, a multitude of signs are defined and explained.

Even the most fastidious student of language or medicine might frequently refer with benefit to such a work as this, if only to verify his own knowledge.

W. H. DONNELLY.

SMELL, TASTE AND ALLIED SENSES IN THE VERTEBRATES. By G. H. PARKER, Sc.D., Professor of Zoology, Harvard University. 37 illustrations. J. B. Lippincott Co., Philadelphia and London, 1922.

In devoting a monograph to a consideration of the senses of smell and taste in particular, the author does so believing these senses are as important in many respects as those of sight and hearing. Not only do the organs of taste and smell guard against the indigestion of unwholesome food but they are also responsible indirectly, by initiating the secretion of digestive juices, for the nutrition of the animal. In his discussion of the nature of sense organs the author reviews the older conception of these organs—a conception which held that sense organs were chiefly concerned with providing the brain with the elements of which the mental life is composed. Such a belief was considerably modified with the development of the theory of reflex action for it was shown that the reflex may or may not be associated with sensation. The author presents in considerable detail, the anatomy and physiology of the olfactory organ and the gustatory organ. He devotes one chapter to the "Common Chemical Sense" which, he says, ". . . in the reptiles, birds and mammals is restricted to the partly exposed mucous membranes of the natural apertures, a restriction that doubtless arose as the vertebrate changed from an aquatic to an air-inhabiting form." The book is very freely illustrated and contains an unusually extensive bibliography. Being rather comprehensive in character the work should be especially valuable to advanced students of physiology.

FRANK E. MALLO.

APPLIED CHEMISTRY. An Elementary Text-book for Secondary Schools, by Fredus N. Peters, Ph.D., Instructor in Chemistry in Central High School, Kansas City, Mo., for twenty-three years; more recently Vice-Principal; Author of "Chemistry for Nurses," etc. Illustrated. C. V. Mosby Company, St. Louis, 1922. Price \$3.50.

Seldom does one encounter in a technical book, however elementary may be its scope, such a clear presentation of facts as is to be found in this volume. The author's object, as stated in his preface, is to present every-day chemical facts to high school students in an interesting, readable form, and a perusal of this text shows how well he has accomplished his purpose. Fundamental principles and "laws" of chemistry are presented and discussed with great clearness. Chapters are devoted to a discussion of the more important elements and "groups," such as the "copper group," the "lead family," etc., following which there is usually a consideration of processes which are concerned with the utilization in art, science or industry of these substances. The book is exceptionally well supplied with *intelligent* illustrations and cuts and contains a wealth of collateral chemical information which well justifies its title.

The order of arrangement of the chapters, however, is not logical at all. "Valence" is not discussed until the 13th chapter although for a thorough grasp of the matter presented in the chapters preceding, some knowledge of this phenomenon would appear to be necessary. Similarly, the "Periodic Classification of Elements" which forms Chapter 22, should have been presented earlier in the work instead of being introduced haphazardly after some of the major theories and problems of chemistry had already been discussed. These defects, however, do not detract seriously from the general excellence of the volume.

FRANK E. MALLO.

A HISTORY OF THE NATIONAL TUBERCULOSIS ASSOCIATION. The Anti-Tuberculosis Movement in the United States. By S. ADOLPHUS KNOPF, M.D., National Tuberculosis Association, New York City, 1922.

To one interested in the Anti-Tuberculosis movement in this country this volume will prove a veritable mine of information. It is divided into three parts. The first part is devoted to an exposition of the early history and development of the organization known as The National Tuberculosis Association. The second part comprises a presentation of the minutes of the successive annual meetings of the Association from the first held in Washington, D.C., May 18 and 19, 1905, to the seventeenth, held in New York City on June 14, 15, 16 and 17, 1921. The third part is biographical in character, recounting in brief the contributions made by many of its more prominent members toward the solution of that most vexatious of health problems—the menace of tuberculosis.

For its purpose the book is admirably designed, concise and freely illustrated. The officers of the Society are indeed to be congratulated upon so felicitous a presentation.

FOSTER MURRAY.

THE EIGHTEENTH AMENDMENT AND THE PART PLAYED BY ORGANIZED MEDICINE. By CHARLES TABER STOUT. Mitchell Kennerley, New York, 1921. Price \$1.50 per copy.

Regardless of one's opinion as to the merits of prohibition, this book is too intemperate in its attitude toward the medical profession, and it does not deserve serious consideration by the physician. There is plenty of opportunity for logical arguments on both sides of the question, but any physician reading this work will become so disgusted at the author's fallacious conclusions regarding the attitude of so-called "organized medicine" that he will not give serious consideration to the remainder.

E. H. M.

DISEASES OF THE SKIN. By HENRY H. HAZEN, A.B., M.D., Professor Dermatology, Medical Department, Georgetown University; Sometime Assistant in Dermatology in the Johns Hopkins University; Member of the American Dermatological Association. Second Edition. 241 illustrations, including two color plates. C. V. Mosby Company, St. Louis, 1922. Price, \$7.50.

This is the second edition of Hazen's book and is to be commended.

The book has been almost completely re-written and revised to date, and a number of new illustrations have been added.

The text is clearly written and describes the various diseases in a concise yet complete way. The arrangement of the diseases is one which is probably more acceptable to the student or general practitioner because they are grouped according to their classical lesion, or in some cases because their etiology falls in the same group, e. g., diseases due to local irritation, or those due to local bacterial infection, etc.

The work is one worthy of a place in any medical library.

E. A. G.

THE PRACTICAL MEDICINE SERIES. Comprising eight volumes on the year's progress in medicine and surgery. Under the General Editorial Charge of Charles L. Mix, A.M., M.D. Volume I, General Medicine, edited by George H. Weaver, M.D., Lawrason Brown, M.D., Robert B. Preble, A.M., M.D., Bertram W. Sippy, M.D., Ralph C. Brown, B.S., M.D. Series 1922. The Year Book Publishers, Chicago, Ill. Price, \$3.00.

The series is still under the general editorial charge of Dr. Charles L. Mix, and this first volume on General Medicine has an imposing array of editors. The text is divided into four departments as follows: Infectious Diseases and Endocrinology, in charge of Dr. George H. Weaver; Diseases of the Chest (excepting the Heart), under Dr. Lawrason Brown; Diseases of the Blood and Blood-making Organs; Diseases of the Blood-Vessels, Heart and Kidney, by Dr. Robert B. Preble; Diseases of the Digestive System and Metabolism, by Dr. Bertram W. Sippy and Dr. Ralph C. Brown.

The editorial notes by the above mentioned men constitute a most important part of the book, and those by Lawrason Brown are particularly to the point and authoritative. If anything, this year's series bids fair to outclass that of former years, and it is surprising how much of the past year's literature is covered in a small compass.

W. H. DONNELLY.

THE HEALTH-CARE OF THE BABY, A HANDBOOK FOR MOTHER AND NURSES. By LOUIS FISCHER, M.D., Attending Physician Willard Parker, Riverside Hospitals; Chief Attending Pediatricist to the Zion Hospital of Brooklyn. Thirteenth Edition. Completely revised. Funk & Wagnalls Co., New York and London, 1922. Price \$1.00 net.

This edition of Dr. Fischer's little handbook for mothers and nurses is the thirteenth of a work which has had the surprisingly large printing of 165,000 copies.

It is plainly and simply written with handy marginal notes, and it has been brought up to date on the newer knowledge of nutrition of infants.

The first part of the book is devoted to General Hygiene of the Infant, the second to Feeding, and the third to Miscellaneous Diseases and Emergencies.

Inasmuch as the modern mother seems to require and demand definite and accurate rules for her guidance in caring for her baby, she cannot do better than follow the common sense advice set forth by the author.

Dr. Fischer has had long practical experience in pediatrics, and his book is valuable for that reason as well as from the simple, lucid style and arrangement of the text.

W. H. DONNELLY.

SEXUALREFORM UND SEXUALWISSENSCHAFT. Vorträge gehalten auf der I. Internationalen Tagung für Sexualreform auf sexualwissenschaftlicher Grundlage in Berlin. Herausgegeben von Dr. A. Weil. Berlin im Auftrage des Instituts für Sexualwissenschaft, Berlin. Julius Püttmann, Verlagsbuchhandlung, Stuttgart, 1922.

This little volume contains the numerous papers read before the First International Meeting for Sexual Reform and Sexual Knowledge in Berlin in 1922. An effort has been made to create a new specialty in medicine, and to separate its proponents from attachment to Gynecology, Dermatology and Psychiatry. Its members consist of scientists, philosophers and jurists interested in the study of sexuality and its influences from a purely scientific viewpoint.

M. A. R.

THE STORY OF DRUGS. A Popular Exposition of their Origin, Preparation and Commercial Importance. By HENRY C. FULLER. 12mo of 358 pages, illustrated. New York, The Century Company, 1922. (The Century Books of Useful Science.) Cloth, \$3.00.

This book, to quote the author, endeavors to give the layman "in plain every-day terms and phraseology, a story of the various phases of the drug industry, based on the diversified inquiries of non-scientific persons." The story begins with what drugs are and their derivation. Then follows the various pharmaceutical methods employed in extracting their virtues and the forms in which they find their way into trade—as fluid and solid extracts, pills, tablets, etc., with a chapter devoted to the farming of drugs both in this and other countries. Another chapter takes up the vaccines, serum-therapy and vitamins. Up to this point the subject is interesting and instructive, but when we read the chapter on Patent Medicines and the one on Self-Medication the intelligent reader knows it is not scientific, and the real object of the book fails in its mission. The patent medicine industry is lauded on the point of the great care taken in the manufacture of their nostrums and the purity of the drugs used. Self-medication is approved and such remedies as the following are recommended for the Family Medicine Chest: Female Tonics—Wine of Cardui, Pinkham's Vegetable Compound, etc.; Bromo Seltzer for headache and so on, naming a great many of the well known nostrums and a few commendable proprietary preparations. Altogether the book is not a safe guide for the layman.

F. S.

MANUAL OF THE DISEASES OF THE EYE. For Students and General Practitioners. By CHARLES H. MAY, M.D. Tenth Edition revised. With 377 original illustrations including 22 plates, with 71 colored figures. William Wood & Co., New York, 1922. \$3.50 net.

This tenth edition does not present much new matter, but is a revision of previous editions. The book remains what it started out in life to be,—a manual for the student and general practitioner, and an excellent one at that.

The illustrations and colored plates have always been a joy to the reviewer. The text is condensed but ample, and the author is again to be congratulated upon this new appearance of a fine work.

E. CLIFFORD PLACE.

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FUNCTIONAL TESTS OF THE CIRCULATION AND THEIR SIGNIFICANCE.*

By W. W. HERRICK, M.D.,
NEW YORK CITY.

INTRODUCTION.

THE practitioner of today is, for better or for worse, tending to stray from the morphological or structural point of view in medicine. His search is becoming less for changes in form, more for changes in function. Not so much is he concerned with how an organ looks or feels or sounds, as with what it will do; not appearance, but performance.

In cardiology, we have been long in passing through the era begun by Laënnec and his stethoscope. For quite a century, meticulous descriptions of physical signs held the field. Vital decisions were based on the presence or absence of murmurs or enlargements. This era was supplemented by a period characterized by the application of instruments of precision—the sphygmograph, sphygmomanometer, the polygraph, electrocardiograph and electrophonograph—to the study of the heart. This period seems now to be merging with one in which the study of the functional response is paramount. In view of this trend, we may, therefore, profitably inquire into the development and practical value of the various means proposed for the estimation of circulatory function or efficiency.

THE EARLIER TESTS OF MYOCARDIAL EFFICIENCY.

These methods began to appear in the medical literature about 1905. One of the earliest is Herz's¹ "Selbstemmungsprobe." This is performed by carefully noting the pulse rate at rest, then slowly flexing the forearms while opposing the movement forcibly by bringing into play the extensors. Herz believed that such exercise of strain in normal individuals causes no change in pulse rate, while in those with feeble hearts, the pulse rate is slowed five to twenty beats per minute. American observers, Cabot and Bruce,²

also Hirschfelder,³ while subscribing to Herz's findings in the main, note sufficient exceptions so that the method seems to them, in general, unreliable. Apparently, Herz's test has not survived criticism and has only historic value.

One of the earliest functional tests is a development of Marey's⁴ studies (1881) in which he showed that in normal individuals with simultaneous compression of both brachials and femorals, the blood pressure rises. Katzenstein⁵ showed that in individuals with decompensated hearts subjected to similar arterial constriction, the blood pressure is unchanged or falls. Subsequent observers (Hoke and Mende)⁶ have corroborated these results in general, but consider the test unreliable and too dangerous and painful for general use. This test, with its numerous modifications, has also passed into disuse.

GRAÜPNER'S TEST.

In 1905, Graüpnér⁷ published his studies on the rise of blood pressure following exercise. He found that moderate effort, such as rapid walking, was followed by a rise of blood pressure in normal persons while those with failing hearts showed a fall. These observations were confirmed by the careful work of Baur,⁸ and in the United States, by Cabot and Bruce.²

In 1906, Graüpnér⁹ published the most comprehensive of his studies on the rise of blood pressure following exercise. His conclusions were:

1. A moderate amount of work in well trained individuals causes no change in systolic blood pressure.
2. An increase in work causes an immediate rise in systolic blood pressure, and this returns promptly to normal.
3. If the work is increased to the point of strain, there is, immediately after work, a fall in blood pressure followed quickly by a rise to a point above the normal, and a later return to normal. Graüpnér regarded this primary fall in blood pressure and secondary rise above normal as indicating "functional insufficiency of the heart."

Barringer,¹⁰ taking Graüpnér's basic idea, made further clinical studies of the effect of

* Read at the Annual Meeting of the Medical Society of the State of New York, at Albany, April 19, 1922.

exercise upon blood pressure. This work is, in summary, as follows:

Barringer studied the effect of carefully measured amounts of work upon the systolic blood pressure. He concludes that (1) a delayed rise in systolic pressure after work in a normal person, or in one with cardiac insufficiency, indicates that the preceding work had either made the heart temporarily insufficient or had increased an already existing insufficiency. (2) "If the systolic blood pressure reaches its greatest height not immediately after work but from thirty to one hundred and twenty seconds later, and if the pressure immediately after is less than the original level, that work has overtaxed the heart's functional capacity and may be taken as an accurate measure of the heart's efficiency." Using this standard, Barringer found that a cardiac capacity under 1,000 foot-pounds per minute affords important confirmatory evidence of myocardial disease. Mann¹¹ found that, in a small group of convalescents, there was a progressive increase in the amount of work necessary to produce this "delayed rise" of blood pressure as clinical improvement took place. In a study of the circulatory reactions to graduated exercise in normal children, Wilson¹² finds this test of value.

In most other quarters, however, one meets dissentient views. From the clinician's viewpoint, a serious criticism is that Barringer took account of rises in blood pressure frequently as small as 4 mm. Hg. So commonly does the systolic blood pressure vary 5 to 10 mm. or more within a few seconds and under such a variety of conditions that most observers will agree that variations under 6 or 8 mm. are often within the limits of error or of physiological variations and cannot form a solid basis for important conclusions. Again, Rapport,¹³ in a careful study of the response of the blood pressure to exercise, finds that the time intervals are all-important. He states that, provided there is any reaction to exercise, rise is always present, whatever the amount of work. With increasing amounts of work, the rise is prolonged. The summit of the blood pressure response to different amounts of work is reached within twenty to sixty seconds and is not prolonged beyond sixty seconds. The curves reach a normal level in times varying with the amount of work—from one to four minutes. In cases of moderate exercise, the rise in blood pressure is completed promptly—too promptly to afford time for reading except by the use of special methods. In more prolonged effort, the reading may be taken on the rise since the rise is delayed. To speak of this delayed rise as an index of circulatory efficiency is, in Rapport's opinion, unsound and, at best, an assumption. On the clinical side, Mabon,¹⁴ in a study of effort

syndrome with measured work, found that when such cases were exercised even to the limit of their strength a delayed rise of blood pressure was observed so "rarely and inconstantly" that it had no value in estimating the circulatory capacity of this group of cases. In a personal communication, Dr. Burton-Opitz gave the opinion that a delayed rise in blood pressure after effort is too inconstant and unreliable to have any practical value as a measure of cardiac reserve force. From the standpoint of physiology and of clinical observation it would, therefore, seem precarious to base sweeping and positive deductions respecting the efficiency of the myocardium upon the behavior of a single circulatory factor with its complex of relationships which might modify its response and adjustment to varying conditions.

Whatever the merits of the bygone controversy, the test has been superseded by methods grounded upon simpler and more generally accepted physiologic facts.

THE BLOOD PTOSIS TEST. (CRAMPTON.)

From this point in the evolution of tests of circulatory efficiency, we proceed from the simple to the elaborate. Crampton¹⁵ leads with his work on "blood ptosis" or "the gravity resisting ability of the circulation." This is not offered by its originator as a test of myocardial function, but rather as an indication of the efficiency of the influences which bring the blood to the heart when the body is in the upright position, and through them, a measure of the efficiency of the individual. In this test, there are two factors: the pulse rate and the systolic pressure, each of which may vary in either direction when the subject changes posture from the horizontal to the vertical—the increase in systolic pressure tending to indicate efficiency, and an increase in heart rate the reverse.

The test is performed as follows: The patient lies down until the pulse becomes stabilized. The systolic pressure is then recorded. The patient then stands until the pulse rate reaches a "standing normal" or stabilization, when the systolic pressure is again measured. The resulting increase or decrease in systolic pressure and in pulse rate is used in conjunction with a standard table to find the individual's index. In health, the index varies from 50 to 100. While a "low gravity resisting power" on the part of the circulation is evidenced by a low index, some diseased conditions show very high indices. Crampton, himself, frankly says that the test is extremely rough and may be misleading. The work is, however, of importance intrinsically and as a development: it seems based on sound physiology and, if not trusted too far, is helpful clinically. It is of special use in indicating a

change in an individual's general condition. As Crampton remarks, "a decline in the blood ptosis index may precede any other evidence of the onset of an acute disease."

Sewall¹⁶ has extended somewhat the clinical study of the postural changes in blood pressure. He emphasizes the significance of the rise in diastolic pressure on assuming the erect posture after lying down, as an important contributory evidence of poor adjustment to gravity on the part of the circulation. The rise in diastolic pressure may take place with or without a coincident fall in systolic pressure, the end effect being a fall in pulse pressure. This fall in pulse pressure in turn denotes a lessened stroke volume of blood to meet the demand caused by the effort to assume and maintain the body erect, and is a fairly dependable criterion of the general physical efficiency of the individual. In the opinion of Sewall, "excessive fall of systolic pressure in the erect posture indicates weakness of vaso-motor control. Excessive rise of diastolic pressure denotes vascular spasm and abnormal effort." Sewall finds that the usual cause of lowered pulse pressure in the erect posture is a rise of diastolic pressure. This he believes indicates lack of contractile vigor on the part of the ventricles, which may be helped by small doses of digitalis.

SCHNEIDER'S SYSTEM OF RATING.

Although brought forward as a means of measuring the general capacity or fitness of the body as a whole, Schneider's¹⁷ system of rating is a development of importance in the estimation of circulatory efficiency. This rating is arrived at by combining the results of the blood ptosis and the simple exercise tests. In arriving at a rating, Schneider uses six factors:

1. The reclining pulse rate.
2. The standing pulse rate.
3. The pulse rate increase on standing.
4. The increase in the pulse rate after exercise.
5. The time required for the pulse rate to return to normal after exercise.
6. The difference between the systolic pressure in the reclining and the standing postures.

A point system is suggested for convenience in reading the cardio-vascular rating. The scores for each of the six items range from plus 3 to minus 3. A perfect score—plus 3—for each of the six items would be 18. For details, the reader is referred to Schneider's¹⁷ original paper and the accompanying table taken from this paper. Schneider found that a score of 9 or under gave indication of physical unfitness.

Scott,¹⁸ in the exacting demands of the aviation service, found Schneider's the only efficiency

test giving reliable information as to the fitness of men for flying. He found that Crampton's test gave no sharp line of demarcation between the fit and the unfit. With Schneider's rating, when a man was found with a score of 7 or less, he was usually unfit for aviation, while those with a score of 8 or more, were generally fit. Scott found loss of sleep, infections, excesses and fatigue had prompt effect in lowering the ratings.

Schneider's ratings are apparently based on sound physiology. In his paper, he quotes the interesting comparison of Dreyer in the case of the rabbit and the hare which brings out some fundamental facts in the consideration of circulatory efficiency. The rabbit depends upon the burrow for safety and leads a relatively sedentary life, while the hare dwells in the open, his sole means of defense his speed. Specimens of equal weight show the following contrasts: The hare has double the blood volume of the rabbit, 30 per cent more hemoglobin, and three times more heart muscle. The respiratory rate of the hare is 18 to 20; of the rabbit, 50 per minute. The pulse rate of the hare is about 68; that of the rabbit, about 200. Not dissimilar comparison can be drawn between the trained athlete and the flabby sedentary worker. A slow pulse rate and a slow respiratory rate characterize the man in training and he responds to effort with much less acceleration of pulse or respiratory rate than does the untrained individual. Again, as Crampton has observed, the gravity resisting capacity of the circulation in the trained individual is greater than that of the untrained.

RESPIRATORY FACTORS.

The tests thus far mentioned have invoked only circulatory factors. Can any others be brought into the equation of circulatory efficiency? With the further development of the subject, this is possible. Certain respiratory factors are worthy of consideration. The simplest may be termed the "Breath Holding Test." In normal individuals, the ratio of time in seconds during which the breath can be held may be expressed as follows: 40-70 on inspiration, 20-35 on expiration. In cardiac insufficiency, the ratio is preserved, but the figures are smaller—averaging 25-15.¹⁹ This ability to hold the breath probably varies with the vital capacity. The vital capacity—the volume of the greatest possible expiration after the greatest possible inspiration—has been particularly studied by Peabody.²⁰ This observer states that the average volume of an ordinary or normal respiration is about 10 per cent of the vital capacity. He gives as an average vital capacity for normal males, 4,000 to 5,000 cc.; for females, 3,000 to 4,000 cc. He

found a close relationship between dyspnoea and decline in vital capacity. In patients with 90 per cent or more of the normal vital capacity, there were no cardiac symptoms; in those with a vital capacity of 70 to 90 per cent, there were exertional dyspnoea and a lessened cardiac reserve; among those with a vital capacity of 40 to 70 per cent of the normal, all could walk, but only 7 per cent worked; those with a vital capacity of less than 40 to 45 per cent were in bed. This observation is a corollary to the earlier observations of Peabody²¹ that patients with cardiac disturbance are unable to meet the demands for added pulmonary ventilation as are normal subjects. There is a "limitation of the depth of breathing" which is a large factor in cardiac dyspnoea.

Another interesting sidelight with some practical bearing is Peabody's observation that in cardiac patients presenting a lowered vital capacity the basal metabolism was raised 12.8 per cent while those with a vital capacity of 60 per cent or more, gave a figure of 2.5 per cent above normal. This supplements the findings of Peabody, Meyer, and DuBois²² that nine of twelve cardiac patients with dyspnoea showed an increased oxygen consumption from 25 to 50 per cent above the average normal. In the same paper is brought out the fact of an increased minute volume of air in those having the lower vital capacity. The bearing of this on exertional dyspnoea is obviously direct. Its cause is found in the probable decrease in the respiratory surface and a relative increase in the dead space in the patient with severe heart disease. This, in turn, has bearing upon the greater proportion of oxygen and the lesser proportion of carbon dioxide found in the alveolar air of such patients as compared with normal individuals.

At this point, the work of Peters and Barr²³ may be mentioned. They observe that in health the difference between the carbon dioxide content of arterial and venous blood is not large and is comparatively constant. In conditions of impairment of the efficiency of the general circulation or of ventilation of blood in the lungs, a disturbance of the ratios is to be looked for. They further note that the "patient with cardiac decompensation maintains his alveolar carbon dioxide at a lower level than does the normal individual, and the level to which he will permit it to rise under the influence of rebreathing is proportionately reduced." These observers state that the increase in the minute volume of effective or exchange air is not explained by the higher level of metabolism, but is necessitated by the low concentration of carbon dioxide in the exchange air. Any great increase in ventilation

is impossible "because of the diminished effective lung volume of decompensated cardiacs."

The complexity of the problem involved in any method attempting to estimate circulatory efficiency from every aspect finds further illustration in the work of Pearce.²⁴ This student insists upon the interdependence of the metabolic rate in the tissues, the pulmonary ventilation and the capacity of the heart to deliver blood. He states that so long as the demands of the tissues for oxygen and for the removal of waste products are met by adequate and co-ordinate functioning of circulation, of the processes of gas exchange in the lungs, and of internal or tissue respiration, the mechanism of the body is in equilibrium, which means comfort and efficiency. However, let any member of this vital triad fail to keep pace with the others, there is at once discomfort and inefficiency.

As Pearce adds, it is important in the study of myocardial function to appreciate that the limitations in the vital triad of heart, lungs, and internal or tissue respiration usually lie in the heart muscle. In other words, breathlessness on effort is due to inability of the heart to furnish sufficient blood flow to supply the needs of the tissue for the added oxygen the effort calls for. The normal lung, with its factor of safety of 1,000 per cent, can probably always keep pace with the gaseous demands of the tissues. The tissues can probably utilize a sufficient amount of oxygen to meet all demands. The limitation is in the capacity of the heart to deliver sufficient blood to meet the metabolic demands of the tissues. It is clear, therefore, that a measure of functional capacity of this basic triune mechanism must, under ordinary conditions, be a measure of the capacity of the heart.

Pearce suggests that the measure of the pressure gradient of carbon dioxide in the blood passing through the lungs—the difference in carbon dioxide tension between the afferent and the efferent blood as regards the lungs—is a reasonably accurate though indirect measure of cardiac efficiency. This test is too technical and difficult for ordinary clinical purposes, but it is useful as a development. It shows the increasing recognition of extracardial factors in all efficiency tests. While this study of Pearce's might, at first, appear to the clinician to complicate the study of cardiac efficiency, it in reality simplifies it through its emphasis upon the relative weakness of the myocardium in the trinity of vital functions and the fixation of responsibility upon the heart in the event of lack of proper response of the body to stress.

In summarizing the clinical worth of the efficiency tests involving respiratory factors, it may be said, with the exception of that for the vital

capacity, they have more academic than utilitarian interest. Thus far they do not serve the physician where he most needs help—in the detection of slight or early variations from the normal. Among them, the test for vital capacity alone meets this demand and is of unquestioned value.

THE ELECTROCARDIOGRAM.

The electrocardiogram has added much of interest to the study of the heart, but it has to most of us been somewhat disappointing in the extent of its clinical aid. The electrocardiogram records not the force or contractile power of the heart but the point of origin, course, velocity and voltage of the excitation wave as it passes through the heart muscle. By its aid we get evidence of the rate, rhythm, location of the pacemaker, path, direction and velocity of the excitation wave, and representation of disproportion of muscle mass of different parts. Evidence as to the character of the heart muscle derivable from it must be indirect, limited, and subject to variable interpretation. Not infrequently, for example, a diseased heart gives a normal electrocardiogram. However, when recognized changes occur in the electrocardiogram, and are confirmatory of symptoms or physical signs—or both—the clinician can offer an opinion with added assurance.

Such electrocardiographic evidence as may be of value in estimating the character of the myocardium may be summed up as follows: Evidence of auricular damage, such as changes in the P wave, the oscillations of fibrillation and flutter; evidence of damage to the His' bundle, such as a prolonged or irregular P-R interval; evidence of damage to the pacemaker, such as nodal rhythm, extrasystoles, and other variations in rate and rhythm; evidence of defects in the ventricle, such as predominance of either ventricle, spreading apart of the Q-R-S wave beyond the maximal normal of .10 seconds, thickening or notching in any part of the waves of the Q-R-S group, abnormalities of the P wave, such as the inversion seen as an effect of digitalis or other poisons affecting the heart muscle.

THE EXERCISE TEST.

Tried in the fire of experience in sifting out the unfit among the United States recruits in the recent war, the exercise test was not found wanting. Its simplicity and lack of requirement of apparatus make it most desirable. The pulse rate is counted after the subject has been quietly seated for a few minutes. Then a measured amount of work is performed. This may be one hundred hops or repeatedly stepping upon a chair or but a few arm flexions—depending upon the

safe capacity of the individual. The work performed should make a genuine demand upon the subject's capabilities. The pulse rate is counted immediately after exercise and again after two minutes of rest. In the absence of disease of the lungs or gross disease elsewhere, or of fatigue, the pulse rate in a young individual in good physical trim after one hundred hops should not be accelerated more than 20 beats per minute and should, within two minutes after stopping the exercise, be within 5 to 10 beats of the previous resting rate. Dyspnoea should not be marked. Modified to suit individual needs of patient or physician, this test is the most practical of all for the practitioner.

The ideal test of circulatory function should take account of all possible factors. It should include the resting pulse rate, the standing pulse rate, the rate after exercise, the time required for return to resting normal rate after exercise and after change in posture; such respiratory factors as the vital capacity, the minute volume of pulmonary ventilation, the pressure gradient of carbon dioxide in the blood entering and leaving the lungs, the basal metabolic rate, the electrocardiogram—all this in addition to the time-tested physical examination and history.

With all this data complete in a given case, would we, even then, be in a position to accurately predict or measure the capacity of a heart? We would be nearer but not at the goal. Such elusive factors as neuro-muscular fatigue, psychic states, endocrine balance, are to most of us imponderables of weight but not weighable. The processes of the living being are too complex to compass with the precise limits of mathematical formulas. Desirable as the attempt always is, an attitude of inquiring skepticism is safest in the presence of claimed achievement.

What, then, is the practical conclusion of the whole matter? What will serve the practitioner as a rapid and fairly accurate test of circulatory efficiency? In addition to a developed clinical judgment and the information derivable from the ordinary history and physical examination, the simple exercise test will serve. While aware of its limitations, the observation of the acceleration of the pulse on a definite amount of exercise and the time required for a return to the previous resting rate will satisfy ordinary clinical requirements. Should a higher degree of precision be desired, Schneider's system of rating is to be recommended. The special student may go further and adopt any or all of the more elaborate methods mentioned. The more factors he takes into account, the better. Always, however, he strives for the unattainable—an exact and thoroughly reliable test of circulatory efficiency.

POINTS FOR GRADING CARDIOVASCULAR CHANGES (AFTER SCHNEIDER).

A. Reclining Pulse Rate		B. Pulse Rate Increase on Standing				
Rate	Points	0-10 Beats Points	11-18 Beats Points	19-26 Beats Points	27-34 Beats Points	35-42 Beats Points
50- 60	3	3	3	2	1	0
61- 70	3	3	2	1	0	-1
71- 80	2	3	2	0	-1	-2
81- 90	1	2	1	-1	-2	-3
91-100	0	1	0	-2	-3	-3
101-110	-1	0	-1	-3	-3	-3

C. Standing Pulse Rate		D. Pulse Rate Increase Immediately after Exercise				
Rate	Points	0-10 Beats Points	11-20 Beats Points	21-30 Beats Points	31-40 Beats Points	41-50 Beats Points
60- 70	3	3	3	2	1	0
71- 80	3	3	2	1	0	0
81- 90	2	3	2	1	0	-1
91-100	1	2	1	0	-1	-2
101-110	1	1	0	-1	-2	-3
111-120	0	1	-1	-2	-3	-3
121-130	0	0	-2	-3	-3	-3
131-140	-1	0	-3	-3	-3	-3

E. Return of Pulse Rate to Standing Normal after Exercise		F. Systolic Pressure, Standing Compared with Reclining	
Seconds	Points	Change in Mm.	Points
0- 60	3	Rise of 8 or more	3
61- 90	2	Rise of 2-7	2
91-120	1	No rise	1
After 120: 2-10 beats above normal	0	Fall of 2-5	0
After 120: 11-30 beats above normal	-1	Fall of 6 or more	-1

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THE CAUSATION OF SYMPTOMS IN CASES SIMULATING CHRONIC APPENDICITIS.*

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IT is with considerable hesitancy that I approach this paper. The title is unsatisfactory—probably its only virtue lies in its calling attention to the fact that there is a considerable pathology of chronic appendicitis outside of the appendix. I believe that this is most important and that its more general recognition is imperative. We are not so very many years away from the time of continuous discussion of the treatment of acute appendicitis. The question was an urgent one and, in the excitement of its solution, men orated and fell into the vices of most orators, namely: the biased consideration of facts and the sacrifice of essentials to effects. It is, perhaps, necessary to be dogmatic in teaching beginners. The inclusion of many exceptions interferes with the force of one's statements. Unfortunately, the beginner's stage being passed, the tendency of our orators is to entirely neglect the important exceptions or to dwell upon them with little emphasis or conviction. This is too bad because it delays, by a number of years, the clearing up of the discussed question. The mass of us like to hear our leaders talk—we carry away their forcefully expressed ideas as gospel. When, after a few years, their ideas change and the change is not announced or, if so, with a shrinking modesty—not to be compared with their former gusto—we miss the change of the current and go blindly on.

Roughly, it was from 1900 to 1910 that the oratorical period of appendicitis was in full flower. The public was becoming well informed as to the symptoms and dangers of appendicitis

and was alarmed. The relative ease of diagnosis and the absolute ease of surgical treatment tended to obscure other causes of symptoms in the abdomen. When prominent leaders came out with announcements that, aside from the acute forms of appendicitis, there was a chronic appendicitis which might be the cause of all symptoms of gastric, duodenal, gall bladder, intestinal, kidney, ureteral, bladder and pelvic disease (besides being the possible focus for the rest of pathology) and that the removal of this dire evil was almost perfectly safe, the operative dam broke and the flood came. Of course, the orators did not mean all they said—as they said it. What they meant was that if the organs, more nearly connected with the symptoms, could by careful study and differential diagnosis be excluded as causes, and the appendix could not be given a clean bill of health, its removal would—in a certain unknown proportion of cases—be followed by amelioration of symptoms. Bryan, himself, could not make this proposition bring a crowd to its feet for a Chautauqua salute.

The trouble comes from the fact that, as experience with the problems of chronic appendicitis has mounted, there has been no corresponding emphasis given the solution of these problems by the leaders and the masses of us go on believing what we have heard and what we continue to read in the big books. It would seem that, after all these years of experience, the new volume of what its publishers call our "ranking system of surgery" would give some very definite information as to the real diagnosis of chronic appendicitis. Instead, there is much book-filling talk of reflex arcs. The most valuable diagnostic point is given as tenderness over the region of the appendix. We are told that even this may be absent; that the more obscure a case of indigestion is, the more likely is the appendix to be at fault and then that, unless a diagnosis can be given, it is not always well to operate except as an exploration. On the one hand, we have a public cognizant of the dangers of appendicitis, knowing that a chronic appendix may become acute at any time and, on the other hand, a profession assured of the ubiquitous possibility of chronic appendicitis in almost any abdominal symptom complex. The result is easy to vision and we have it.

The majority of people with abdominal symptoms and tenderness over the right lower quadrant are, or soon will be, minus an appendix and from \$200 up. I set the lower limit at \$200 because few come out of a hospital for less than \$100 nowadays and even the newly landed alien knows that the other hundred is almost the standard lower limit. By and large, in these cases operated under a diagnosis of chronic appendicitis, the pathologist will report "normal

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appendix" in from 10 to 50 per cent of the cases—dependent upon the enthusiasm of the operators—and the follow-up system will report "unrelieved patients" in from 14 to 50 per cent of these cases. Now, it is easy to say that the pathologist does not know or cannot tell a normal or pathological appendix, but the term "appendicitis" implies inflammation, and the microscope is probably as little likely to go wrong as the operator's hand or eye. Furthermore, the mere finding of pathological changes in the appendix does not necessarily mean that these changes are the basis of symptoms. The general truth of these propositions is borne out by the results obtained in these cases—not those reported within a month or two but those ascertained after six months or a year.

We all see the scarred veteran whom the other fellow has failed to cure. Some are just the same; some are worse; some are cured of their original trouble but now have adhesions and gas pain, and some are just neurasthenics. The sum of these "somes" lies between the percentages above given.

Now, what is the answer to all this? Mayo premised it years ago when he said: "We only operate on gastric and duodenal ulcers which can be shown across the room." The history of operative surgery answers it. As we review the operative procedures which have risen to prominence in our medical literature in the past thirty years and sunk into disuse without any particular notice in the medical literature, we are struck by their least common denominators: first, reflex symptoms with lack of gross pathology; second, fair to excellent plumbing practices applied to physiology.

The big general class of individuals we are discussing has been more or less relieved by perineorrhaphy, repair of the cervix, suspension of the uterus, fixation of the kidney, suspension of the stomach, gastroenterostomy, short-circuiting and other procedures on the intestines. The reason that they have undergone all these things is because we, as surgeons, have disliked to stand the gaff of results. The attitude of the average surgical mind toward results in public is about this: if a patient is relieved of symptoms by a Christian Scientist or a chiropractor, there was nothing the matter with the patient; if the patient is relieved of the same set of symptoms by the surgeon, it was a good piece of work. If, after the surgeon had operated, the patient still had his symptoms, he was a poor, miserable neurasthenic. May God have mercy on his soul, because, surgically, he was fixed up right. It is only because of this attitude that the diagnosis of chronic appendicitis, with the consequent removal of the appendix, is still so widely practiced when every reported follow-up in these cases has

shown unsatisfactory results in from 30 to 40 or 50 per cent of cases. Codman, years ago, found 40 per cent unsatisfactory. Staunton, in 1919, told us how he had cut his unsatisfactory results from 36 to 14 per cent. Gibson, writing from New York Hospital, gives 30 per cent of those reporting as unsatisfactory, but feels sure that those who did not report would show the best results. I admire an optimist. It seems to me that, here again, the history of surgery shows that we have usually ascribed our best results to the cases who did not report—until they reported.

The patient with an obscure abdominal syndrome is placed in a curious position. He must run a risk of from $\frac{1}{2}$ to 1 per cent of dying in order to ascertain whether he has a 30 to 40 per cent chance of wanting to run the first risk again. How is the situation to be changed? In the first place, we must look the facts squarely in the face. We know enough about acute appendicitis to be able to pretty well rule that out in the consideration of a given case—this leaves us time. We know enough about the kind of cases being called chronic appendicitis to know that it is safe to take time to observe and study them—the only risk we run is having their appendix removed by someone else before we arrive at our decision.

A general picture of the case under discussion could be drawn of a patient having pain in the abdomen, indigestion, flatulence, constipation, dragging sensation in the right side, frequency of urination, backache, nausea, etc. They have these things in all manners and sorts of combinations. When are the symptoms due to chronic appendicitis; when are they not and, if not, to what are they due? Unfortunately for you, I am not able to settle this question—even to my own satisfaction—but there are several points which seem to me to stand out as landmarks from which to start our survey. I believe that an appendix, to produce symptoms, must have at least two things wrong with it: there must be obstruction to its action as a hollow viscus and there must be inflammation. Staunton, in 1919, in telling us how he had reduced his failures (in this class of cases) from 36 to 14 per cent, brought out the fact that, in practically all of his relieved cases, the pain of which they complained had started, or was at some time or other, a colicky pain in the mid-line—about or above the umbilicus—and was usually associated with nausea. This is the result of an obstruction to the normal hollow viscus physiology of the appendix. If there is any considerable amount of inflammation, there will develop tenderness in the region of the appendix. If watched for long enough or searched for carefully enough, this sequence is practically always found—regardless of how much of a smoke-screen of other symptoms there may be.

On the other hand, a review of a relatively large number of case histories of patients unrelieved, whose pathological report had been "normal appendix," brings to light this striking feature: the pain of which they complain is in the right lower quadrant and tenderness is practically constant. They may have the other features in all kinds of degrees and combinations, but their great complaint is pain and tenderness in the right lower quadrant. Whenever a patient with a chronic history complains of pain in the right lower quadrant and is tender on examination, the appendix is the last thing to consider and not the first; unless there can be determined a history of colicky mid-line pain, the appendix is only to be considered a possibly suspicious character.

Taken with the rest of the case, the opinion of a good radiographer—after a thorough barium study—is of tremendous advantage; with it alone I have been disappointed. Considering the percentage of failures, I believe that no case should be operated as a chronic appendicitis without such an examination.

The appendix has been said to cause frequent urination; kidney, bladder and ureteral symptoms. There are undoubtedly occasions when, because of its anatomical position this is so, but, when one has urinary symptoms, the place to look for the explanation is in the urinary tract and, in the presence of any symptoms pointing to trouble in the urinary tract, the appendix should never be removed until the urinary tract has been thoroughly investigated. In one service at the hospital last year, there were four cases of intermittent hydronephrosis—two sent in for appendix operations, and two had already had appendix operations and were in because unrelieved. This is only one phase of the urinary causes of symptoms.

Indigestion, flatulence, constipation, etc., may be due to anything from cribbing to enteroptosis; from poor habits to bodily fatigue; from organic pathology to mental pathology, and until these fields have been surveyed, digging operations on the appendix claim should not be started.

When we have gone all over the ground and still have been unable to find pretty definite reasons for attacking the appendix, we should not be betrayed into removing the appendix without a careful consideration of the purely psychological side of the case. As a class, we have been too prone to overlook the neuropsychiatric side of our own results while making it the basis for the results of other kinds of practitioners. I am referring more and more of these cases to a wise woman, trained in neuropsychiatry, and she accomplishes one of two things in most of them: they either get better or else they transfer their symptoms to some other part of their anatomy which causes me no anxiety. This is a great

relief, because, while I believe one can be fairly sure on a given case I am, nevertheless, one of the masses who tend to believe what they see in the books, and, especially, what they hear from the lips of the Gods. Just so long as these sources continue to play the appendix against the field, I shall be worried about betting on the field. You may say that playing the appendix against the field is still the safest thing, but, gentlemen, we should not be betting on possibilities where we have opportunity for thousands and thousands of observations in what we are pleased to call a science. That we are still in the betting stage is shown by a 20 to 50 per cent proportion of failures. This cannot help but reflect unfavorably on surgery as a science, and it will only be changed when we change it ourselves by facing facts and taking the gaff of our mistakes.

INTESTINAL OBSTRUCTION FOLLOWING UNRECOGNIZED CASES OF APPENDICITIS.*

By ARTHUR M. DICKINSON, M.D.,

ALBANY, N. Y.

MEDICINE as a science has made great strides forward in the last century, but surgery, from a small beginning made only a few decades ago, has progressed at such a rapid pace that today it seems as if most diseases necessitated some form of surgical therapy. Some of our professional brethren, especially the medical men, seem to feel that surgery as a branch of medicine has advanced beyond the boundaries of its rightful field, but time alone will settle this question, and until it is finally and definitely decided we must each travel the road which seems to lead toward the goal of all medical endeavors, which is the relief of human suffering.

The problem of intestinal obstruction is one which requires much further study and investigation. The proof of this necessity is the limited knowledge of obstruction we have today as contrasted with our present information about the surgical diseases of the abdominal organs. In the past few years we have greatly reduced the mortality in gastric ulcer cases, in gall bladder cases and in appendix cases, but the decrease of mortality in cases of obstruction has been very small in comparison. The diagnosis of intestinal obstruction is obscure and thus delay often ensues before correct treatment is instituted, with an unfortunate result upon the patient. Jump, in the *International Clinics of 1920*, says, "It is a lamentable fact that in most cases of acute intestinal obstruction no diagnosis has been made

* Read at the Annual Meeting of the Medical Society of the State of New York, at Albany, April 19, 1922.

until the case is far advanced, and in many instances not until the terminal symptoms of toxemia have occurred." This accounts in a measure for the existing high mortality of about 35 per cent but does not in any way lessen our responsibility for this high rate. Much importance rests upon the early diagnosis, as the following figures illustrate. If the patient is operated upon during the first twelve hours of the disease the death rate is only about five per cent; the second period of twelve hours raises it to eleven per cent, while the next period of twenty-four hours increases it to about thirty-one per cent. Furthermore these figures are about the same regardless of the ability of the individual operator or the method of surgical treatment used. This emphasizes to a further extent the necessity of early diagnosis. The surgeon, it is true, is not generally responsible for the delay in diagnosis. The general practitioner is accustomed to try the various cathartics or being pleased by obtaining some result with an enema delays surgical consultation until affairs have assumed a serious outlook. Then, too, in some instances, the surgical consultant has been misled due to our incomplete knowledge of the subject, and allows many valuable hours to flit by before he operates.

Let us now briefly consider the causes of acute intestinal obstruction, excluding the true ileus of the paralytic or dynamic type which we see occasionally. These may be hernia, bands and adhesions, volvulus, intussusception, thrombosis of the mesenteric vessels, gall stones, fecaliths, ulcers, kinks, malignancy, etc. We all know that where the peritoneal cavity is invaded by micro-organisms that frequently adhesions form which as their vascularity decreases contract, thus pulling upon the portion of attached gut. However in the absence of an abdominal scar how prone we are to forget the possibilities of adhesions. Of course we are on the lookout for intussusception in children, especially where there is a history of a bloody stool and a sausage shaped tumor can be palpated through the abdominal wall. Malignancy, we generally think of as causing a chronic obstruction, but every now and then cases of acute obstruction occur where upon operation we find an unsuspected malignant or tuberculous condition of the bowel.

The symptoms of acute obstruction are not constant. It frequently commences with nausea and vomiting first of gastric contents, then duodenal contents with bile and later fecal material. Hiccoughs occasionally occur. Local areas of pain are absent as a rule. If present, pain is usually found in the umbilical or epigastric regions. It varies greatly in character, being frequently cramp-like. It is not relieved by enemata and is aggravated by cathartics. Enemata at first may be followed by a good result, but

as soon as the intestine is cleared up to the level of the obstruction, no further result is obtained. In cases where there is an intussusception, blood may be found in the movement. The inability to pass flatus is a very important diagnostic sign. Peristaltic waves may be visible, but this is not the rule. Distention of the abdomen is more common than flattening. The higher the location of the obstruction the less the distention but the more fulminating the case. The pulse, which at the onset is slow and full, becomes rapidly small as the case progresses. The temperature is usually subnormal. Added to this group of symptoms may be those which are the direct result of the organ or part affected.

The diagnosis of acute intestinal obstruction, in the absence of an abdominal scar indicating the possibility of adhesions, is rather difficult at times. Given a patient with a history of fecal vomiting, obstipation and distention with a rapid pulse, a normal or sub-normal temperature, sunken eyes and a dry coated tongue, the indication is for surgical treatment. If in doubt we should operate, for, as Finney of Baltimore says, "Better a few unnecessary exploratory incisions on live patients than a continuance of the long and melancholy rôle of hurried enterostomies done on moribund patients." As the figures given earlier in this paper indicate, it is better to operate during the first few hours of the disease, even though the picture is not very clear, than to wait until all the cardinal symptoms are present and the patient is rapidly approaching dissolution.

In going over the literature on acute intestinal obstruction, I find no reference to the appendix as a causal agent and therefore I ask your indulgence while I present this following case history and necropsy report.

CASE REPORT.

H. S., male, white, single, age 23, clerk by occupation, admitted to the Albany Hospital, Sept. 22, 1921, in a state of collapse and complaining of persistent vomiting with generalized abdominal pain.

PREVIOUS HISTORY: Always well until four years ago, although not robust. At that time he had an attack of fever accompanied by nausea and vomiting. He also had some pain which was located under the left costal margin. This illness necessitated his remaining in bed for a period of two weeks. His family physician called it bladder trouble and catheterized him several times. Since then he has been fairly well. Occasionally he would have some pain in the left hypochondrium accompanied by belching of gas. His appetite and digestion have been good and his bowels regular.

PRESENT COMPLAINT: Began eight days ago with pain below the left costal margin accompanied by nausea and vomiting. At first the vomitus was greenish in color, then it became brownish with a disagreeable odor. According to his physician the patient's temperature never rose above 100. His pulse was slow and of good quality until the morning of his entrance into the hospital. On the second day of the disease the physician gave him two grains of calomel and followed it with one ounce of salts. With the assistance of an enema a very good bowel movement was obtained. This apparently caused considerable improvement in his condition and for the following two days he retained liquids taken by mouth. The next day attacks of vomiting recurred. His abdomen was somewhat distended for about six hours, but softened after the administration of one ounce of castor oil by mouth. The oil was followed by a good result. Then he became better and the vomiting ceased. He tolerated liquids well. On the morning of his admission the patient began vomiting again and suddenly collapsed. His physician then decided that he was in a serious condition and brought him to the hospital by automobile, a distance of thirty-five miles.

On admission to the hospital the patient was in a state of shock. His eyes were dull and sunken. His face was pale and emaciated. His features were drawn. His skin was cold and clammy to the touch. The pulse could not be palpated at either wrist. His temperature was 98, and his respiratory rate 22. He begged pitifully for a drink and in so doing disclosed a dry, furred tongue. His heart sounds were weak and distant and the pulse rate counted at the apex with a stethoscope was 150. Hot water bottles were placed around him and saline was given both by rectum and subcutaneously. After he had improved somewhat an abdominal examination was made. The whole abdomen was flat and soft. No areas of resistance were noted, although the patient complained of slight tenderness in the upper left quadrant. No peristaltic waves were visible. On careful palpation a sensation of fluid moving in the intestines was noted and a faint gurgling sound was audible. Otherwise the examination was negative. A tentative diagnosis of obstruction with cause unknown was made. The patient did not respond to treatment for his shocked condition and two hours after admission expired.

I was very fortunate in obtaining permission from the relatives of the deceased for a post-mortem examination. This was performed two hours later by Dr. L. Early, and the following notes made: "Abdomen neither distended nor retracted. Panniculus is small in amount. On opening the peritoneal cavity the omentum is found spread over the intestines. It is markedly

hyperemic. In the pelvis just behind the bladder it is bound to a loop of small intestine by loose adhesions and in the right lower quadrant it is more densely adherent to the cecum. The stomach and small intestines beginning at the jejunum are dilated and contain yellowish fluid. The former shows a slight constriction in the pyloric region, without thickening or inflammatory reaction. The mucosa is negative. The blood vessels of the small intestine show considerable dilation so that the gut is of moderately deep red color. On following the intestine distally, a small portion about six feet from the end of the ileum is found adherent to the parietal peritoneum just below the promontory of the sacrum. This adhesion is moderately firm. Distal to this point the gut is collapsed, containing neither gas nor fecal material except in the rectum where there is a small amount of the latter. The visceral peritoneum covering the ileum shows a small amount of fibrino-purulent exudate distributed irregularly where the coils are loosely matted together. The cecum is markedly injected and loosely adherent, and as it is detached a small amount of creamy pus escapes into the pelvis. The appendix is retrocecal, bound by firm adhesions. At a point about 2 cm. from the top it is gangrenous and ruptured, the surrounding peritoneum showing discoloration and a fibrino-purulent exudate. Examination of the pelvis shows an abscess between the rectum and bladder. It is entirely walled off. It contains about 40 cc. of thick creamy pus."

In looking back over the history of this case, having knowledge of the post-mortem findings, it is very evident that the appendix was responsible for the whole train of symptoms. In the beginning the patient had an attack of appendicitis which was diagnosed as bladder trouble, from which he recovered to a large extent, but with an appendix ready to light up with the slightest provocation. The last illness was caused by a recurrence of the inflammation of the appendix, which, due to its damaged condition, allowed the infection to spread to the peritoneal cavity with the formation of pus. Nature in her attempt to wall off this infection of the peritoneum caused adhesions to form which were soft and vascular at first, but with a diminished blood supply they became tense and contracted, so shutting off the lumen of the bowel. However, there are several things to be explained about the case. Why should all the pain which occurred in the previous attacks and in the terminal attack have been referred to the left costal margin? The pull of the omentum attempting to protect the viscera from the inflamed appendix might have caused it. I am inclined to think, however, that it was more probably due to a distention of the jejunum with subdiaphragmatic pressure. When we consider the adhesive tangles which are so fre-

quently found about the site of an inflamed appendix, it is a matter of surprise that we find obstruction so infrequently. The ways of nature are indeed marvelous.

In spite of the absence of reports of any similar cases in the literature, I feel that they must have occurred, but being unrecognized or unconfirmed by autopsy the physician has not reported the occurrence.

I purposely have not touched upon the question of types of operation as it is entirely too big a field to be covered in a paper of this nature. I believe it is sufficient to say that whatever type of operation is indicated, it should be done with the least possible delay after the patient is seen. It is with the hope of securing earlier diagnoses and earlier operation in cases of obstruction that this paper is presented.

INTESTINAL OBSTRUCTION; ITS EARLY RECOGNITION AND TREATMENT.

By L. MILLER KAHN, M.D., F.A.C.S.,
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IF a patient suffering from acute intestinal obstruction is permitted to go on with the condition unrelieved, death ensues. The longer the period of time elapsed from the onset of the obstruction to its relief the less likely is the patient to recover. Acute intestinal obstruction from no matter what cause produces the same general train of symptoms. It is enormously advantageous to know before resorting to operation, exactly the cause and the site of the obstruction but it is not essential to the relief of a condition which may have brought about the death of the patient. The essential thing is that a diagnosis of the presence of the obstruction itself be made without delay, for no matter what the cause, or where the site of the obstruction, the injury to the bowel and to the patient goes on with amazing swiftness.

Much time and many lives have been lost in attempting a too exact diagnosis in patients suffering from acute intestinal obstruction, and once the presence of the obstruction is fully established, laparotomy is superior to any amount of conjecture.

A man aged forty is suddenly seized with a severe pain in the abdomen, and vomits. He takes an enema and his bowels move but his pain is hardly less severe than before. Two hours later he is seen by his physician, who finds that he has no rise of temperature, but that his pulse is rapid and that he is in severe pain. Physical examination of the abdomen shows no distention and between paroxysms of pain there is no rigidity, but the man looks ill and is restless. After a

few hours the pain has lessened somewhat but his nausea continues and he again vomits. Another enema is given but this time without results. When the physician returns, the patient appears apprehensive, complains of the nausea and the pain in the abdomen, and upon examination this time the abdomen is slightly distended and the pulse rate is still rapid. His temperature has risen to 100. This time an enema is given under the supervision of the doctor, who makes sure that no air is given with the fluid injected, and the results are the return of the enema without fecal particles and no gas is expelled. Very little urine has been passed. The stomach is now washed and a good deal of bile stained fluid is obtained. Three hours later the stomach is again washed and the same kind of fluid is obtained in about the same quantity as before. There is no especial local tenderness in the abdomen, and in fact pressure by the hand rather relieves the pain.

The above is a typical picture of a case of obstruction of the intestine, no matter from what source. Naturally all these symptoms will vary with the individual case, some being of greater or less intensity. If this man is permitted to go on without relief his vomiting will change in character, he will seem to spit out without effort mouthfuls of gastric contents, the pulse will become more rapid and weaker, his watchfulness will increase, and death will ensue in three or four days with all the evidence of a profound poisoning. In what degree can we explain this picture, what has happened in this man's abdomen in addition to an intestinal obstruction, that is, in addition to the mere halting of the onward movement of the intestinal contents?

Extensive series of experiments made upon animals have brought to light much information. There are, or rather were, three theories to account for the severity of the toxic symptoms and the actual cause of death in animals in which intestinal obstruction was experimentally produced. The theory that the symptoms were the result of nervous shock was disproven by the division of the splanchnics in the presence of experimentally produced intestinal obstruction with a continuation of the symptoms and death. The contention that poisoning was bacterial in origin had been disproven by careful experimental work on dogs, in which it has been shown that the bacterial content in the obstructed loop can be practically disregarded as a cause of death, if there is no damage done to the bowel in bringing about the experimental obstruction.

Beginning with Maury, in 1905, all evidence points to the fact that under obstruction conditions there is a perversion of the physiology of the intestine that leads to the retention and elaboration of toxins within the cells of the intes-

tinal mucosa, and from this source comes the systemic absorption and intoxication.

Under experimental conditions where the progress of the pathology can be observed at definite intervals, the bowel above the obstruction shows progressive dilatation with edema and redness, particularly of the mucosa of the duodenum and upper jejunum, and there may be gangrene if the circulation is interfered with. The kidneys, liver, and pancreas, and sometimes the spleen show the typical changes of a severe toxæmia.

Hartwell showed that by giving large amounts of saline subcutaneously, in amounts in excess of the liquid vomiting and urine excreted, animals in whom intestinal obstruction had been produced could be kept alive for much longer than the usual period of time.

As to the part played by the interference with circulation of the bowel, Murphy and Vincent, in one series, ligated all the mesenteric veins in the occluded loop, thereby producing venous obstruction, while in another series they produced total anemia of the obstructed loop by ligating all the arteries and veins of the mesentery. The cats with venous obstruction all showed early typical signs of acute ileus; nausea, vomiting, loss of muscular tone, subnormal temperature, weak pulse, shallow and rapid respiration. These cats all died within twenty-four hours. Post-mortem examination showed the occluded loop distended, the peritoneum had lost its lustre, the occluded loops were dark purple in color, and the abdomen contained from six to ten c.c. of bloody fluid.

In those cases where total anemia had been induced by complete ligation of the arteries and veins in the intestinal loop, as one would expect, gangrene resulted, with general peritonitis. When the contents of the obstructed loops, in each of the above series, were injected into the peritoneal cavities of healthy dogs, fatal results invariably followed. Injection of thirty c.c. of the same fluid into the jejunum of a healthy cat produced no ill effects, but when the terminal ileum in a cat was obstructed and the injection made as above, death resulted with symptoms of and in the same time as in a high obstruction.

This brief resumé of the physiopathology will serve to call attention to the fact that there is generated in the obstructed loop of bowel a toxin deadly to the individual, that the changes that go on in the obstructed loop and in the bowel above it tend to make the bowel defenseless against this toxin opening the way for its all too rapid absorption. It has been observed both experimentally and clinically that the higher up the obstruction the more severe the symptoms and the more rapid the progress of the disease.

While reverse peristalsis has been fully demonstrated in the large bowel, it has not been shown to exist normally in the small intestine. In fact, if one reverses a loop of small intestines

in an animal, the intestinal current will flow through it, but examination of the loop will show that the reversed section of the bowel takes no part in the onward propulsion of the contents and later becomes dilated and still takes no part.

Vomiting is either reflex or regurgitant; that is, the stomach contracts from the stimulus of a nervous impulse, or when distended, empties itself by letting the content seek the outlet of least resistance. It is of the highest importance in considering a case of doubtful intestinal obstruction to establish which type of vomiting is present, as this has great diagnostic significance. The reflex vomiting occurs early in many conditions but the regurgitant type is pathognomonic of intestinal obstruction. The character of the vomitus changes rapidly in acute intestinal obstruction and no other single factor gives such diagnostic aid as the repeated use of the stomach tube. The characteristic color of the high intestinal contents, which may best be described as that of coffee to which milk has been added is noted very soon after the obstruction takes place. The odor is quite different from that of the gastric secretion mixed with bile, and may be described as fecaloid.

Although the interpretation of the signs of intestinal obstruction has been more or less confusing, we are, by the aid of animal experimentation, gaining a clear conception of their significance. Few of the aids that one may employ in the cases of chronic obstruction can be used in the acute cases and it may truly be said that the experienced clinician cannot be replaced here by laboratory methods.

The symptoms of intestinal obstruction are almost too well known to bear repetition, but as the typical case is the unusual one, it will serve a useful purpose to place the symptoms in their order of importance in making a diagnosis. Let us group the sudden onset, the pain, and the vomiting, as the first symptom. These occur in many conditions other than intestinal obstruction. The pain has usually a definite rhythm due to the effort of the bowel to overcome the obstruction, and usually there are periods of rest. The rhythmic character of the pain in acute intestinal obstruction is perfectly exhibited in infants suffering from intussusception. The vomiting as has been said is at first reflex, but may early become regurgitant, that is, without apparent effort.

The collapse which is dependent on the circulatory changes in the bowel and the absorption of toxic material has the greatest meaning as an indication for operative interference. This cannot be too strongly emphasized. This collapse is well seen in the average case of obstruction and strangulation of a loop of bowel in an umbilical hernia. The rapid pulse and the mental alertness of the patient and his great exhaustion are sig-

nals of the intensity of the intoxication produced by the intestinal damage. Acute pancreatitis is the only other intra-abdominal condition which will produce such rapid profound prostration.

The failure to pass gas, if the evidence is certain, is conclusive of intestinal stasis, but one must be on guard against a false interpretation of the results of enemata. Great care must be exercised so that no air is introduced with the fluid of a probative enema. Stool may be passed with enema in the presence of a high obstruction but the stool so passed was present in the bowel below the point of obstruction. I have placed the signs and symptoms first in importance in the making of a diagnosis, but the history is in itself often diagnostic. The history of previous operations, of a long standing hernia, or of recurring attacks of severe abdominal pain with sudden cessation, are indicative. Examination of the patient may reveal an obstructed hernia, a mass in the abdomen, or a mass in the rectum. The judicious employment of the stomach tube gives information of first importance.

The possible causes of intestinal obstruction permit of grouping by ages that may be useful. In the new born, imperforate anus and bowel; almost immediately after birth, congenital pyloric stenosis; from three months to about two and a half years, intussusception; and from that time on till old age, perhaps the commonest causes of intestinal obstruction, acute appendicitis; in the adult and the aged, strangulation of herniæ and volvulus from a too freely mesentery and overloaded bowel; and in those of advanced age, acute obstruction, due to malignancy.

It will often be impossible to distinguish between the purely mechanical obstruction and that resulting from intraperitoneal infection and especially is this so when peritoneal infection results from the ileus, for example, in mesenteric thrombosis.

The greatest difficulty in our own cases has arisen from the similarity of severe renal colic with a reflex stasis to that of the true mechanical ileus, and in the consideration of the case this should not be forgotten.

SUMMARY.

Pathological changes occur so rapidly that immediate steps must be taken or death will ensue. The immediate outcome of a case of acute intestinal obstruction depends largely upon the seriousness with which the first physician who sees the patient regards the symptoms. There are no mild cases of acute intestinal obstruction. With the possible exception of congenital pyloric stenosis, immediate operation is the treatment for intestinal obstruction. Van Buren has said that the longer the patient lives before the operation the sooner he dies after it. This summarizes in a sentence the necessity for

early operation. A new low level for the mortality rate in all types of acute intestinal obstruction will be established only when these patients are submitted to operation before irreparable damage is done to the bowel and to the sufferer.

SHOULD GASTROENTEROSTOMY BE PERFORMED IN THE PRESENCE OF RUPTURED DUODENAL ULCER.*

By DONALD GUTHRIE, M.D.,
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ONE of the most debated questions in present-day surgery is—shall gastroenterostomy be performed in operating for acute rupture of a duodenal ulcer after closure of the perforation? In reviewing the literature on the subject one is amazed by the conflicting reports of the mortality, the morbidity, and the post-operative results reported by the two conflicting schools—the conservative, advocating only simple closure of the ulcer by inversion; the radical, urging that gastroenterostomy be performed in addition to closure of the perforation.

In an attempt to ascertain what the feeling of the surgical profession in general is upon the subject, the author has had one hundred and fifty-two replies to a questionnaire sent to prominent abdominal surgeons in this country which he will analyze with you very briefly. The questionnaire was the following:

1. In operating for acute perforation of a duodenal ulcer, is it your practice to do a gastroenterostomy after you close the ulcer?

2. If not, what have your post-operative results been as far as you know, and how often have you had to reoperate later and do a gastroenterostomy?

3. If it is your practice to perform a gastroenterostomy after you have closed the ulcer, may I trouble you to let me know something about the mortality that you have had in this operation?

4. Do you employ drainage, and about how long do you leave the drainage in?

Answers to Question 1 have been classified into four groups; namely, affirmative, negative, qualified affirmative, and qualified negative. Under group one, twenty-two men answered the question in the affirmative. Gastroenterostomy was done as a routine after closure of the perforating ulcer. Among these were Deaver, Lilienthal, Judd, Ashhurst, Delatour, Estes, Sistrunk, Polak, Halstead, and Gaub. Three men chose the Finney pyloroplasty for the treatment of perforated duodenal ulcer.

* Read at the Annual Meeting of the Medical Society of the State of New York, at Albany, April 19, 1922.

Group 2—Sixty-four men answered in the negative. Gastroenterostomy is never performed as a routine after closure of the perforating ulcer. Among the men in this group were Stanton, Pool, Loop, Lower, Jackson, Bottomley, Crile, Codman, Duffield, Mayo (Charles), McMullen, Mulligan, Babcock, Vander Veer, Tinker, Syms (Parker), Bloodgood, Irish, Fowler, Gibson, Goetsch, Wainwright, Wallace, Vincent, Royster, Rodman, MacLean, Broad, Beilby, Cottis, Chittenden.

Group 3—Qualified affirmative. The men of this group, thirty-four in number, believe that a gastroenterostomy is indicated should the condition of the patient be very good, the length of time between the operation and perforation not more than ten to twelve hours, the amount of contamination or beginning peritonitis small, and the ulcer large and indurated so that its infolding and closure will markedly narrow the lumen of the pyloric end of the stomach or duodenum. The men in this group were Sullivan, Ochsner, McGuire, Willy Meyer, Lund, Auchincloss, Derby, Prince, Moorhead, Hartwell, Elting, Booth, Brewer, Mudd, Woolsey, Gibbon, Zimmer, Truesdale, Mixter, Jonas, Cutler, Glass and others.

Group 4—Qualified negative. The conditions mentioned by the men in this group, twenty-nine in number, which would contraindicate gastroenterostomy, were if the period of time between the perforation and the operation were long and peritonitis had developed to a dangerous degree, if the perforation were small and the duodenum large and not infiltrated by scar tissue. Some of the men answering in this way were Moschowitz, Dean Lewis, Bancroft, Clinton, Warbasse, Peck, Bevan, Erdmann, Dowd, Coffey, Stewart McGuire, Frazier, LaPlace, Knickerbocker, LaConte, Black and Davis.

It will be seen that there is very little difference in the number of men in group three and four, to wit: thirty-four in the qualified affirmative group and twenty-nine in the qualified negative group. There was a distinct conservative tone noted in the letters of most of these men not favoring gastroenterostomy if there is any doubt as to the additional risk to the patient. It has been extremely hard to separate these two groups but there was much expression of conservatism found in the letters from the men in the qualified affirmative group. As they did not answer the question flatly in the affirmative or negative they have been classified this way. It was very common to get answers to the first question about gastroenterostomy in this way: "Rarely do I do a gastroenterostomy unless—or almost never do I do a gastroenterostomy, unless the patient's condition should be excellent, etc." However, they have not been classed in the negative or affirmative groups. Morris does not close the ulcer or

do a gastroenterostomy at the time of operation. He simply operates quickly, drains and employs the Alonzo-Clark opium treatment. Warbasse employs the same method of treatment if the infection is serious and has existed for some time.

In analyzing Question 2, "If not, what have your postoperative results been as far as you know, and how often have you had to reoperate later and do a gastroenterostomy?" fifty-seven men report that it has not been necessary to reoperate on any cases in their series; fifty men report that it has been necessary to reoperate. Many of the replies are of interest. Brewer, Gibson and Auchincloss all report they have been obliged to operate the second time for perforation in the same patient. Townsend reports two such cases where operation was necessary. Bottomley, rarely ever necessary to reoperate, Clinton, a few cases. Joyce, Jopson, LaConte, Myer, McGuire, Ochsner, VanBuren, Ashhurst, Booth, Elting, Guerry, and Mudd, each one case. Bailey and Jeff Miller, two cases. Lahey, Stanton, Woolsey, Gibbon, Peck, Pool and Fowler in three cases. Hartwell writes that a small percentage at Bellevue needed gastroenterostomy afterward. Vander Veer and Babcock report operating once in a series of fifty cases each. LaPlace and Lund in five cases. Jonas, the majority need subsequent gastroenterostomy. Percy thinks that twenty-five per cent of the cases need subsequent gastroenterostomy. Mayo writes that he believes a second operation is not usually necessary within a year. Coffey thinks that seventy-five per cent of the cases are cured without gastroenterostomy. Gibson, in a series of sixty-one cases, reports seven patients returned for gastroenterostomy and one for another perforation. Two men report having been operated upon for perforated ulcer themselves without gastroenterostomy and are perfectly well. Cullen thinks the results are as good without gastroenterostomy as with it.

Question 3—"If it is your practice to perform a gastroenterostomy after you have closed the ulcer, may I trouble you to let me know something about the mortality that you have had in this operation?" Various mortality rates from zero up to sixty per cent are reported. Nine men believe that the mortality rate is not increased by gastroenterostomy. One man reports no deaths in forty cases with gastroenterostomy. Another reports a mortality of thirty-three and a third per cent with gastroenterostomy—another sixty per cent. Frazier believes that gastroenterostomy is not so essential for recovery in the acute perforated cases as it is in the unperforated cases.

Question 4—"Do you employ drainage, and about how long do you leave the drainage in?" Fifteen men failed to answer this question. Of the one hundred and thirty-seven answers received, one hundred and one men always use drainage. Five usually use drainage. Eighteen

rarely use drainage. Thirteen do not use drainage—among whom are Irish, Stanton, Willy Meyer, Derby, Finney, Wallace, Wainwright, Buchanman. Suprapubic drainage besides drainage at the site of the operation was mentioned by twenty-three men. In going over the answers to this question one is impressed by the expressions in the belief that drainage formerly was allowed to remain in too long a time. Several men emphasized the importance of keeping all drainage away from the suture line. The length of time that the drainage was allowed to remain in was from twelve hours to twelve days. Two men mentioned the belief that intestinal obstruction has been caused in their work by too prolonged drainage.

From all the above mentioned information several things are readily seen. First, that there is a wide difference of opinion on the question of gastroenterostomy at the same time as closure; that few surgeons practice it as a routine; that by far the greater number—many excellent men are conservative and employ simple closure; that almost a like number employ gastroenterostomy only if the condition of the patient will warrant it; that the time after the perforation is short and the peritoneal soiling is small in amount; that the postoperative results after simple closure are excellent in most instances, but that it is necessary to reoperate often for a return of gastric symptoms.

Deaver in a late paper says: "In treating perforated gastric and duodenal ulcer I do a posterior gastroenterostomy because I believe that in the hands of a skilled surgeon it gives a lower mortality and is more likely to result in a permanent cure. If the appendix has not been removed, take it out, also the gall bladder, if diseased. This statement is borne out by my results, but I maintain this should be done only by an experienced surgeon and not by the occasional operator. He should content himself with simple closure of the perforation except when the perforation has greatly narrowed the lumen of the bowel." The writer does not believe that it is safe for the masters of our art to preach broadcast such radical doctrines. How many occasional operators are willing to admit they are not skilled surgeons and how many are wont to follow the dictates of the masters in fear that they will be so classified should they be conservative. The writer has yet to do his first gastroenterostomy in the presence of acute perforation in a series of forty-two cases. In earlier days he was content simply to close the perforation, reinforce it, drain and get through the operation in the shortest possible time; of late, however, with so many radical views abroad, he has had the impulse to add a gastroenterostomy after closure and has feared losing caste with his associates, especially internes, for his conservatism; but the belief that

two safe operations are always better and to be desired than one too dangerous, still maintains. Charles Mayo believes the addition of gastroenterostomy doubles the operative risk and even when the duodenum has been so narrowed by closure that gastroenterostomy must be added, it can be safely done a few days, a few weeks, or a few months afterward, the patient having been tided through a grave surgical emergency. The fear of narrowing the pylorus or duodenum is the one which turns many men of conservative surgical judgment to resort to gastroenterostomy.

In our series of forty-two cases there have been seven deaths. Simple closure with drainage was performed in each case and it has been necessary to reoperate in three cases. One, the first week after operation; one, two months after operation; and one a year after operation. One case has six-hour retention with gastric symptoms and needs a gastroenterostomy, but as yet has not consented to operation.

Stewart and Barber in a late paper show experimentally the return of the pyloric canal to normal function after inversion, plication and grafting, in the stomachs of five dogs which were perforated by the cautery, closed, x-rayed, and sectioned. They report results of twenty-four acute perforated ulcers treated by closure alone with two deaths—one the second day after perforation and one the third day, and conclude that the end results of their cases compare favorably with a like number of chronic ulcer cases upon whom gastroenterostomy had been performed.

Mulligan says, "At times it seems impossible to close the opening without constricting the pylorus too much. However, experience teaches us that this is seldom true."

Pool, reviewing fifty-five cases of acute ulcer perforation operated on in the New York and Hudson Street Hospitals, reports that gastroenterostomy was performed in but eight instances, because of great narrowing of the pylorus and duodenum after inversion. These cases were all operated upon within six hours after perforation and all recovered. A study of the ten cases who died in the series failed to reveal a single death in which gastroenterostomy would have saved the patient. Pool concludes that his figures are not favorable for initial gastroenterostomy in the treatment of acute perforating ulcer, except in very early cases with marked diminution of the pylorus after closure of the perforation.

Stillman, reviewing Peck's cases in the Roosevelt Hospital, reports thirty acute perforations of the duodenum. One-half of these had closure alone of the perforation, the other half had gastroenterostomy added. There were four deaths from simple closure and three from gastroenteros-

tomy. Fifteen cases were drained, and fifteen undrained. Seven wounds in the latter group broke open and in each group a subphrenic abscess developed.

Brenner in a recent paper in reporting thirteen cases of perforation did simple closure in eight. He believes a good practical rule when in doubt is not to do a gastroenterostomy, but thinks it can be performed later. He believes that if the tip of the little finger can be insinuated through the site of the closure there is little danger of obstruction.

Farr believes early diagnosis and simple closure of the perforation will result in a cure in a very large proportion of cases.

In conclusion, let me call your attention again to the fact that many surgeons of large experience maintain that it is not wise to do gastroenterostomy at the time of closure in acute perforated ulcer.

FUNCTIONAL GASTRIC TESTS.*

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AN attempt to present the multitude of gastro-intestinal functional tests, including those of the liver and pancreas, would require many hours of time and the presentation of theories not unquestionably accepted. Therefore, we have decided to confine ourselves entirely to those associated with gastric function only.

In order to more clearly present these, we will consider them under the headings of motor and secretory functions. The peristaltic activities of the stomach accomplishes the chymification of the food and its passage from the cardia to the duodenum. Interference of this function induces hyper or hypo motility:

Pathology at the pylorus or cardia causes obstruction or relaxation, usually obstruction is present.

Obstruction at the Cardia—This is indicated by the inability to pass a stomach tube or bougie beyond the cardia as noted by their failure to pass not more than eighteen inches.

Normally after the act of swallowing, auscultation to the left of the xiphoid process demonstrates a prolonged, loud, squirting, deglutition sound occurring from seven to ten seconds after the act. Its presence demonstrates the permeability of the cardia, its delay or absence indicates obstruction.

By means of the esophagoscope, one can by direct vision note the character of the mucous

membrane and permeability of the cardia. Roentgenographically, one can readily demonstrate obstruction at the cardia. Frequently a large capsule filled with opaque salts will be delayed at this point when previously the liquid meal had passed through.

Obstruction in this locality may be caused by spasm, carcinoma, ulcer, stricture, or extra-gastric pressure. The esophagoscope and roentgen ray usually will determine the pathology present. Spasm can be eliminated by the administration of physiological dosages of belladonna and bromides, which will allow the unimpeded passage of the bougie or tube, fluoroscopic verification of the same should be practised.

Obstruction at the Pylorus—This condition is produced by spasm, carcinoma, ulcer, cicatricial tissue, or extra-gastric processes, each producing many similar phenomena, and also individual characteristics which will distinguish one from the other. The retention of food products and gastric secretion is pathognomonic of each.

The Prune or Raisin Test for Retention—The patient is instructed to eat at 8 p. m., following a simple evening meal, six stewed prunes or twenty raw or cooked raisins or currants usually with rice. The next morning before food is taken, aspiration of the fasting gastric contents reveals the presence of prunes or raisins and rice.

String Test—A bead the size of a pea or an ordinary B.B. shot fastened to a silk string, seventy-five centimeters in length is swallowed by the patient and allowed to remain over night. Upon its removal the next morning, there is a golden yellow stain on the string for a short distance (ten to fifteen centimeters) from the bead, demonstrating that the pylorus is patent. If one-third or more of the string is stained, it indicates regurgitation of bile into the stomach.

Test Meal Characteristics—The aspiration of a test meal consisting of three ounces of unbuttered white bread and two hundred cubic centimeters of water, reveals a much larger amount than that taken, and in addition, food remnants eaten the day previous; the contents placed in a conical glass, separate into a top frothy layer, middle murky layer, and a sediment of solid material.

The roentgen ray is of utmost value and characteristic in retention, showing at least a six-hour delay and an enlarged stomach.

Motor Phenomena—Hypomotility, which is usually associated with the large atonic stomach, is characterized by similar findings as those just mentioned under pyloric obstruction, except that there is partial emptying of the stomach as evidenced by less food retention, smaller amounts secured by aspiration, and greater emptying power as indicated by the opaque meal.

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Hypermotility or rapidly emptying stomach is present in achylia gastrica, subacidity, cirrhosis ventriculi, or fixation of the pylorus due to malignancy or connective tissue infiltration without obstruction. It is also a reflex manifestation of many other extra-gastric lesions.

This rapid emptying is frequently indicated by the failure to secure a return at one hour after the taking of a test meal. The fractional gastric contents is tested for the presence of starch by iodine, and the point of its disappearance is approximately the emptying point of that stomach. The roentgen ray again demonstrates the hyperperistalsis, patent pylorus, and rapidly emptying stomach.

Secretory Disturbances—Alterations in secretions are determined by the bread and water test meal either at a definite period after its ingestion or by the aspiration of small amounts every twenty minutes over a period of two hours. It is the relative value of these two procedures that interest us most at this time. Reh fuss, Hawk, Bergeim,¹ Crohn and Reiss,² and others have studied many normals and presented various curves of secretion, as comparatively typical of such. They have also presented curves significant of gastric pathology. They noted that each individual has his own characteristic curve.

Forty per cent of individuals show a total acidity of one hundred degrees, or hyperchlorhydria. The same number demonstrated duodenal regurgitation. A fasting residue varying from twenty-five to one hundred cubic centimeters is normal.

Gorham³ has demonstrated that the secretory values vary according to the situation of the tip of the tube in the stomach from where the sample was taken.

Kopeloff⁴ repeated analyses on the same individual at different times within a short period of one another, and under the same physical and mental conditions different curves were obtained. In these single curves the differences in acidities varied to such a degree as to make them indeterminate.

Izod Bennet⁵ found almost similar curves from day to day in the same individual. He also found wide discrepancies in the fasting residuum of from ten to one hundred and fifty cubic centimeters, or an average of fifty-four cubic centimeters. There was a marked variation of the emptying time in health, the average being 1.9 hours. There was no justification for the classification of typical curves such as isosecretory, hypersecretory, or hyposecretory. It is evident by these statements from various workers that a considerable amount of uncertainty exists as to the interpretation of the fractional gastric analysis curves.

Talbot's⁶ opinion was that many problems asso-

ciated with the normal gastric cycle of digestion as determined by the fractional method of analysis have yet to be explained.

Our own work during the past year on normals and pathologicals number eighty-five cases checked by fractional and single test meals, would lead us to state that the single test meal is of considerable diagnostic value and more easily performed than the fractional. There is a certain group of individuals in whom the fractional is annoying, causing retching, duodenal regurgitation, and salivation. In eight cases, an average of one hundred and fifty cubic centimeters of saliva was expectorated.

These factors so influence gastric secretory values that their occurrence must be noted and taken into consideration.

The fractional method is of outstanding value in determining a true achylia or subacid condition, and the actual emptying time of the viscus.

Conclusions—Gastric subacidity is characterized by low total and free acid, values rapidly emptying stomach, rapid disappearance of starch from the contents, and the small amount secured at aspiration.

Achylia gastrica is characterized by a total acidity rarely over ten, absence of free hydrochloric acid, absence of pepsin, rapid disappearance of starch and a small amount secured by aspiration.

Hyperacidity is characterized by high acid values, large amounts, food retention (due to associated pylorospasm), and separation of the contents into three layers.

Pyloric obstruction due to ulcer, cicatricial tissue or extra-gastric pressure is characterized by high acid values, large amounts of contents, food retention, and the three-layer phenomenon.

Carcinoma, non-obstructive type, is usually characterized by subacidity, small amount, rapid starch disappearance and rapid emptying stomach.

Carcinoma, obstructive type, is characterized usually by subacidity or achlorhydria, large amount, food retention, and three layer phenomenon.

At the present time the fractional analysis has considerable distinctive value, but the single test meal is more easily and rapidly performed, rendering valuable diagnostic facts, for which reason it must not be too hastily set aside or belittled.

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GENERAL MANAGEMENT OF HEART CONDITIONS AMONG CHILDREN.*

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THE object in offering this paper is not to present anything new, but rather to emphasize and review the salient points in the care and management of children afflicted with cardiac disease. In accomplishing this, I trust you will pardon an occasional digression—the purpose of this digression being to bring out more clearly certain facts concerning proper diagnosis, which, of course, have a bearing upon the care and management of cardiac cases.

Although much anxiety is often shown when a murmur—commonly inorganic—is heard anywhere over the præcordium, one cannot do otherwise than comment upon the mismanagement, and oftentimes seeming neglect, of some of the more serious manifestations of cardiac disease. When we stop to consider the possible ill effects of a diseased heart upon other vital organs, we can readily appreciate the importance of proper treatment during an acute heart attack, and the necessity for a regulated convalescence of not too short a duration. Most of our city hospitals, especially those outside of New York City, at present do not have the proper facilities for the care of convalescing cardiac cases. Only too frequently are children sent home as soon as the stage of pyrexia has subsided, or when compensation is partially established. What happens then? Many of these children go about with imperfectly compensated hearts, suffering from anemia, dyspnoea, possibly some edema, soon to return to the hospital with hearts in a decidedly worse condition than previously noted. Many of these little patients are handicapped for life, and become not only a burden to the community, but to themselves as well. Many could be saved from an early grave, others of them permanently cured, were they properly cared for in a heart hospital, similar to the Boston Heart Hospital, or otherwise competently cared for in a convalescent cardiac home.¹

What do I mean by a convalescent cardiac home? Just this: a home maintained for cardiacs only, situated in the country where the children might have plenty of pure fresh air and loads of sunshine—where special thought and attention might be given to their daily routine—where they might have exercise up to the point of tolerance which by competent management could be slowly but steadily broadened, where defects such as diseased tonsils, adenoids, carious teeth, infected sinuses, etc., might be corrected—and finally where these children might remain indefinitely until it was thought proper to

send them out. These convalescent cardiac homes should be equipped with the best apparatus that science has produced, and should have a personnel that is especially interested in cardiac work directed along this line.

The cases at such a home should be classified, so that those with badly crippled hearts will not indulge in exercises meant for children suffering from much lesser disease. The classification adopted in 1921 by the New York Association of Cardiac Clinics is an excellent one. It follows:

Class 1 includes patients with organic heart disease who are able to carry on their habitual physical activity.

Class 2 includes patients with organic heart disease who are able to carry on diminished physical activity, either slightly decreased or greatly decreased.

Class 3 includes patients with organic heart disease who are unable to carry on any physical activity.

Class 4 includes patients with possible heart disease. This class includes patients who have abnormal physical signs in the heart, but in whom the general picture, or the character of the physical signs, leads us to believe that they do not originate from cardiac disease.

Class 5 includes patients with potential heart disease. This class includes patients who do not have any suggestion of heart disease, but who are suffering from an infectious condition which may readily be accompanied by heart disease—*e. g.*, rheumatic fever, tonsillitis, chorea, syphilis, etc.²

In searching into the etiology of heart disease, we find that rheumatic infection stands out pre-eminently, although other infections: syphilis, tonsillitis, chorea, scarlet fever, diphtheria, and influenza, sinusitis—are not to be forgotten. The toxins elaborated by the various organisms causing these maladies have a very deleterious effect upon the myocardium, and when this is seriously damaged, the propulsive force of the circulation is hindered, a vicious cycle is established, and sooner or later the patient must succumb. Fortunately, however, according to Sutherland, the myocardium of young children has great recuperative powers, and if given a fair chance, recovery may follow in many cases.³ We must not forget that growing pains, torticollis, tonsillitis and chorea are the danger signals of cardiac disease, and exist really as manifestations of rheumatic infection.

Since, as seen from the foregoing, cardiac disease is most commonly secondary to rheumatic infection, we must look to the latter in our efforts of prevention and treatment. The earlier and more often we detect this infection in childhood, and the more thorough our treatment, the less will be the incidence of cardiac disease. It

* Read at the Annual Meeting of the Medical Society of the State of New York, April 18, 1922.

is unfortunate but true, that in the large majority of instances the early or slight manifestations of the infection are little heeded, and medical advice only seldom sought for. Not until the ravages of the disease have the poor victims within their grasp, do parents seek aid. These little patients in particular, are the ones requiring all our energy, skill and devotion, from a medical as well as humanitarian standpoint. Many a case is brought into our dispensary at Buffalo for some trifling condition, and the past history reveals the so-called "touch of tonsillitis," the "growing pains," or the "stiff neck" of rheumatism. The examination then shows a miserable, anemic, undernourished child with a crippled heart. What could be done for such a case? The ideal thing to do, it would seem to the writer, would be to refer such a case to a cardiac clinic, whence, if it were deemed fit, the case could be referred to the convalescent home, were this institution available. Through these agencies, rational treatment of the rheumatic infection could be instituted with the idea in mind of shortening the duration of the prevailing attack, of preventing recurrence, and of preventing cardiac involvement if possible. The means available for this purpose will be spoken of in a moment.

The objects to be sought for then in the prevention and relief of cardiac disease present three distinct problems: medical, social, and economic.

1. From a medical standpoint, we have to consider the prevention of disease in a healthy heart, and the prevention of disease in a heart already damaged but not necessarily diseased. The causes of injury to the heart muscle are those resulting from infectious diseases, such as rheumatism and syphilis. The destructive effects of syphilis occur mainly in adult life, and involve the consideration of social hygiene. The chief cause of heart disease in early life is rheumatism. There can no longer be any doubt but that this is an infection which enters the economy thru diseased tonsils, adenoids or carious teeth.⁴ Therefore, it would appear wise to have the mouths and throats of all children examined routinely by a competent physician. The eradication of diseased tonsils and adenoids, and the proper care of the teeth are effective preventive measures against rheumatic infection.

A child that has not had the benefit of a proper and well-balanced diet is apt to be illy-developed, and to have a poor resistance against infection, and once having had an infection, is apt not to have the capacity to throw it off.

2. The social problems concerned in the prevention of heart disease require the co-operation of the family, Health Department, school authorities, and others.

3. While the economic problem involved in the prevention of heart disease in children is of importance, because it concerns the future productivity of our country, and because it may cripple prospective wage-earners.

Prevention, then, may be summarized to include the control of infectious diseases, especially rheumatism and syphilis, care of the teeth, tonsils and adenoids, lengthening of the period of hospital confinement, prolonged convalescent care and management, especially following rheumatism, tonsillitis, chorea, etc., proper care and treatment upon leaving the convalescent home, supervision of nutritional defects, prevention of decompensation, and finally reference of the case to a cardiac clinic.⁵

Now, what might be done in the way of prevention, and what might be done for those cases where disease is already established? It would seem to the writer that the cardiac clinic as conducted in New York under the guidance of the Association for the Prevention and Relief of Heart Diseases is a mighty step in the right direction. Only two cities in our state outside of New York City have cardiac clinics. I should like to make a plea for the establishment broadcast of these clinics. There is ample material to keep such clinics very active, and the purpose for which they were originally planned might better succeed. Thus, much might be accomplished for the public, for the community and state, and for the furtherance of our studies in cardiac cases.

The functions of such a clinic should be:

1. Diagnosis of presence or absence of impaired cardiac function.
2. Proper classification of cardiac cases as previously described.
3. Education and advice to patient and patient's family as to the exact handicap, and the various means available for increasing the efficiency of the child.
4. To follow up the case, to encourage the patient, to insure the carrying out of treatment. This line of treatment should include prevention, operative procedures, remedial measures, recreation, and graded exercises.
5. Advice in regard to convalescent home for outdoor constructive treatment.
6. Guidance of school graduates as to vocation.
7. Collection of data so as to facilitate advance in treatment of cardiac disease.⁶

The cardiac clinic, then, reaches out, so to speak, in many directions. It points toward the hospital ward, the nose and throat department, the laboratory, the x-ray department, the dentist, the convalescent home, and to the exercise classes.⁷

In the wards of the Buffalo City Hospital, and

the Children's Hospital, as now conducted, the routine is to accept such cases as show rheumatic infection of one type or another, or cases of cardiac disease with decompensation. The treatment instituted consists of a prolonged period of absolute rest in bed, careful regulation of the diet and of the bowels, and proper medication, including, occasionally, when there is marked cyanosis, venesection. Among the more common of the stimulants used are whisky, camphor, strychnine, atropine, nitroglycerine, caffeine, aromatic spirits of ammonia, and finally the mainstay of cardiac therapeutics, digitalis. Sutherland states that most striking results are obtained with digitalis in cases of disordered rhythm, where a slow heart action is desired, but owing to the fact that irregularities in association with organic heart disease in childhood are not common, one may readily understand why the range of digitalis therapeutics in early life is limited.⁸ Yet we should feel we had neglected our patient and disregarded the careful clinical observations of some of our ablest clinicians, did we not administer digitalis in good-sized doses, especially where the patient presented signs of edema, oliguria, and rapid pulse.

In presenting this paper, I want to repeat again that I have only said what you have likely heard many times before. Its real purpose was to instill a spirit of enthusiasm for the creation and organization and maintenance, broadcast, of cardiac clinics and convalescent homes for the early cardiac cases, the great class for which something might and must be done.

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THE PHYSICIAN IN COURT.

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THE physician in court, whether as a party or as a witness, has impressed me as a man who was not thoroughly enjoying himself—he appears irritated by the interruption of his professional labors, impatient with the lay ignorance of his science evidenced by court, counsel or jury or disgusted with the possibility of grave injustice that may be visited upon him. These feelings may be mixed with a strong self-confidence springing from a realization of his professional skill, that may cause him to assume toward the court an attitude of condescension or superiority.

The physician comes to court either as a party suing or being sued or as a witness. As a witness he may be called to testify to facts or to express scientific opinions as an expert. The physician's appearance as a party in an action may be classified as either voluntary or involuntary. His voluntary appearance is usually as party plaintiff in a suit to collect a bill for services; the involuntary, where he is the victim of attack in a suit for alleged malpractice. Unfortunately, his appearance as a party plaintiff asserting his right to his compensation very often leads, by means of a counterclaim to such suit for alleged malpractice, to his being placed in the position of a defendant. Thus, he may sue for a small bill of \$50 and cause his patient so sued to retaliate with a suit for \$50,000 for alleged malpractice. Our records show a large number of such instances and the defense of such cases often causes great hardship. In any case where the result has not been fortunate, although the physician may have discharged fully his legal obligations to his patient in the treatment, it is of very doubtful expediency to institute suit for fees, until after the two-year period has run and the patient's counterclaim for alleged malpractice is outlawed.

The loss in the physician's time, the unfortunate publicity which he may have from such a counterclaim under these circumstances, is much greater than what he would lose in interest by waiting the statutory period of two years before suing.

To illustrate from a case recently tried: The physician was called to attend a woman who was in her seventh month of pregnancy, who presented symptoms of pleurisy. A diagnosis was made promptly. Empyema developed and in performing an aspiration, the aspirating needle broke. The physician after making superficial effort to reach the broken part, which was under the surface, deemed it expedient to discontinue the search for fear of giving rise to an infection in the patient. As the needle had broken upon

withdrawal, the physician had some fluid before the accident happened. An analysis established the presence of streptococci of haemolytic variety. In time a rib resection was successfully done by the physician. The needle was never found. The physician continued the treatment of the case, the patient made a complete recovery and two months later the same physician was called upon to deliver this woman of a full term child. The labor was normal, a healthy child was born. He sent a bill for his services amounting to less than \$150; the patient did not pay. He started suit for the payment of his bill and he was met with a counterclaim of alleged malpractice for the breaking of the needle and for the failure to remove the same, claiming damages of \$25,000. X-ray plates produced at the trial showed the presence of the needle in the body and experts testified that it was in the lung tissue. While the outcome after a five-day trial was successful for the physician and he was given a verdict of vindication on the charge of alleged malpractice and a judgment for the amount of his bill, there is hardly any amount of money that could be paid him for the trouble he was put to, the anxiety of having to entrust to a jury of laymen a consideration of the many technical scientific questions in the case. Had his suit for services not been instituted until after the two-year statute had run, there would have been no need for any court defense upon the malpractice charge.

The claim of malpractice is outlawed in two years—your claim for fees earned is outlawed in six years. You, therefore, have four years in which to sue without the inconvenience or trouble of a possible baseless counterclaim for malpractice.

As a party defendant in a suit against a physician for alleged malpractice, counsel must always determine whether or not there is liability. This determination constitutes the lawyer's diagnosis—his treatment must be determined upon that diagnosis. When there is no liability, although the result may be bad, there is but one proper course open and one honest advice to give and that is, to fight the case to the court of last resort, if necessary, to defeat the claim. This may cause, in a particular case, a great deal of anxiety, loss of time to the physician concerned, but he owes a duty to himself as well as to the profession to follow that course. A settlement of such a case will invite similar suits against the same physician and encourage claims against his brethren. Where, however, the facts show a clear liability, there is but one question presented and that is, what is the amount of damage?

If the plaintiff seeks to mulct the physician unduly, whether the claim is to be paid by the

physician or by an insurance company, it is bad policy to submit to the extortion.

Under the plan of indemnity provided by the State Society, the future rate of premium to be charged physicians is to be determined by the company's experience over a period of three to five years in handling this type of indemnity. If experience shows a loss, there would have to be an increase in rate. If it showed a very large loss, there is even a possibility of this type of insurance being abandoned by the companies. On the contrary, if it shows a profit, that profit will be reflected in a reduction of rate. It is, therefore, every physician's duty, who has the benefit of this insurance through the State Medical Society, to encourage by his own personal conduct when sued, the carrying out of a policy that will give him and his brother physicians the best ultimate protection. The method of malpractice insurance is merely one by which the load is distributed among all the policy holders in a given territory so that no one feels the loss. The premium rate of \$18 for the minimum policy does not provide a very large financial margin for efficient as well as economical operation of the system and if this rate is to be maintained, the co-operation of physicians in resisting improper claims is necessary.

This discussion, therefore, has a direct relation to the physician's attitude as a party defendant in court. It is necessary for him to assert his rights under such circumstances with enthusiasm and personal effort on his part and to sustain the Society's counsel with willing and prompt co-operation and assistance. The defense of the physician in court under this system of indemnity should bring to the defense a willing co-operation and assistance of those physicians whose expert testimony may be needed, with the same willingness to co-operate in preventing injustice as the profession has shown in the past.

Let us consider the physician now as a witness. As a witness in court he finds himself face to face with the statutory prohibition against his disclosing professional information and therefore, he is more restricted than the lay witness. The statute on this subject is as follows:

"Civil Practice Act. Sec. 352. Physicians and nurses not to disclose professional information.

"A person duly authorized to practice physic or surgery, or a professional or registered nurse, shall not be allowed to disclose any information which he acquired in attending a patient in a professional capacity, and which was necessary to enable him to act in that capacity; unless, where the patient is a child under the age of sixteen, the information so acquired indicates that the patient has been the victim or subject of a crime, in which case the physician or nurses may be

required to testify fully in relation thereto upon any examination, trial or other proceeding in which the commission of such crime is a subject of inquiry."

Where, however, the physician is a party in a malpractice action and in such action must be a witness in his own behalf, the law is not so unfair as to permit the patient to testify as to his idea or version of the treatment and at the same time shut the door to the physician's version. The patient who sues for malpractice is deemed to waive the benefits of the law quoted and the physician may testify to facts which he learned in his professional relation with the plaintiff.

An interesting case, however, recently was conducted by counsel that was based on this restriction. A physician made an examination of a woman to determine her sanity at the instance of her husband. He made a diagnosis of mental incompetency and the husband instituted lunacy proceedings in court for the appointment of a committee of her property. These proceedings failed and she was declared sane by a jury. Thereupon she sued her husband and also the examining physician, claiming that the physician had disclosed information obtained by him in a professional capacity, in that he had made an affidavit in the lunacy proceedings of his findings resulting from the examination.

It can be readily seen that while the action of the psychiatrist in making the affidavit was apparently contrary to the provisions of the statute quoted, nevertheless, in no other way could the competency proceeding be conducted than by having the testimony of the examining physician. If the person were incompetent, a physician would have to be employed by some member of the family or next friend in the interests of the patient to make an examination, and if he were not permitted to disclose the result of the examination, there could be no testimony adduced to conform with the statutory procedure to have such patient declared incompetent. Urging this argument, counsel brought the point upon motion before the court to dismiss the complaint and while there was no precedent directly in point in this state, the granting of the motion by the court in this particular case has established such precedent. So that under these circumstances, the court has held that the prohibition does not apply to the physician's testimony in a lunacy proceeding.

There is great danger to the physician, however, under those circumstances, in disclosing even in a court proceeding other than as stated above, any information obtained from a patient in a professional capacity.

The physician may next be seen in court as an expert witness and as such merely testifies to matters of opinion. He may know nothing of

his own knowledge of the facts, but receives the facts as given him in a statement of a hypothetical question and upon the facts so stated, expresses his opinion. He must be sure that his opinion is supported by facts or that he has not injected or assumed facts that have not been stated in the hypothetical question. The hypothetical question must be based upon sworn evidence already adduced in the case. There is a surprising carelessness, if not ignorance, shown by many practicing attorneys in framing a hypothetical question. The opinion expressed by the expert on a hypothetical question can have no greater weight than the probative value of facts assumed. If the facts are wrong, the opinion is worthless. It has been my experience with many expert witnesses that have been called on behalf of plaintiffs in malpractice actions, that they will give scientific opinions when the facts submitted in the hypothetical question are incomplete or insufficient to justify the expert opinion. Thus experts will give an opinion based almost entirely upon subjective symptoms when in their practice they would require additional clinical findings for a diagnosis. Often the physician expert understands that for the purpose of the case he is to answer the hypothetical question "yes" or "no" and gives the answer without fully realizing the field of cross examination he has entered. Opposing counsel in analyzing the facts submitted in the hypothetical question, soon forces the expert into qualifications, explanation, if not retraction.

To illustrate from a case recently tried by counsel. The parents of a two-year-old child sued two physicians claiming that their malpractice had caused the child's death. The child had diphtheria, that disease caused its death. The parents claimed that shortly before the child's death the physician had manipulated the child and turned it upside down and had given it an emetic and that this conduct was the competent producing cause of death. A physician called by the plaintiff as an expert was given these facts by plaintiff's counsel in a hypothetical question and gave his opinion that the physician's conduct was the competent producing cause of death and that such practice was not proper and approved. Counsel's cross-examination was directed to just what vital organ or function was adversely affected by this treatment, to which the "expert" responded the heart. Further questioning following this answer evoked the response that cardiac failure had caused death. He was then asked if he would exclude diaphragmatic paralysis as a cause of death under the circumstances; he could not. Then he was asked if cardiac failure would be accompanied by pallor or blue appearance in the face. He stated pallor. Well, all evidence in the case was to the effect that the child was cyanotic and just before death

the face was blue. This had not been stated by plaintiff's counsel when the hypothetical question was put. So that the evidences of asphyxia were excluded. It further appeared that the facts submitted to the witness were largely what the parents, who understood little English, had testified they heard said by the physician. The witness was asked if he would make a diagnosis on what people of such intelligence would state to him. The answer was obvious and by that time the value of "expert's" opinion was nil.

Volumes could be written on this subject alone, but for the purpose of this discussion, it may be said that the physician as an expert witness in court should be as scrupulously careful, honest and scientific as he would be if he were expressing his opinion before a body of medical men. Very many expert opinions that have been given by physicians in court would be ridiculed and hooted as scientifically foolish at a medical meeting. Too many medical men as expert witnesses have the wrong idea that the examining counsel is a fool or that the jury and the court are simpletons and it is indeed a pleasure at times when meeting this type of unscrupulous witness, to expose him either as dishonest, incompetent or a quack.

I would like to read the testimony of a man who was called as an expert for the plaintiff in a case involving tuberculosis of an ankle in a two-year-old child that was given in a trial in the central part of the state within the last year. The best medical men of that section of the state testified as experts for the physician. Nevertheless, the fact that the plaintiff's expert expressed opinion against the propriety of the defendant's treatment raised an issue of fact which sent the case to the jury, and the jury, through sympathy for the child or some other unexplained reason, discarded the testimony of the physicians whom they all knew to be of the highest standing professionally and awarded a judgment against the physician. This expert witness had little practice or experience in fifteen years since his graduation from medical school. He had held minor positions as a quarantine inspector and the like and yet assumed to offer himself on the witness stand under oath as a scientific man.

What is to be done by the medical profession with members of the profession who are willing to lend themselves as experts on medical subjects, when the most cursory cross-examination shows them to be unqualified? Unfortunately, the law permits any man who holds a degree of M. D. to qualify as an expert on a medical subject and leaves to the jury of laymen the decision as to what weight to give his testimony. This is a defect which should ultimately be cured by some form of legislative act, that will shut the door to

the incompetent, unscrupulous and unqualified expert witnesses.

It has been my effort in this brief article to call attention to the legal aspects of the physician's activities as a party and as a witness in court in the hope of creating a more sympathetic understanding by the physician of these problems and a desire by the Medical Society to seek remedies for the abuses before such remedies are applied from without by the laity.

INAUGURAL ADDRESS OF THE PRESIDENT OF THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.*

ARTHUR FREEBORN CHACE, M.D.,
NEW YORK CITY.

Fellow Members of the Medical Society of the County of New York: This is an auspicious moment in our history. The year just closed has been one of unusual progress, and the twelve months now opening before us disclose opportunities worthy of our best thought and effort.

The past two years have shown the value of the provisions of our new Constitution delegating the administrative work of the Society to the Comitia Minora and thus leaving our meetings free for the consideration of purely scientific matters. Few of the members are aware of the time spent by the Comitia Minora and your committees in the interest of the physicians of this county.

The Committee on Legislation has rendered notable service in combatting paternalistic legislation at Albany. It has also by the effective use of publicity prevented the passage of the bill licensing chiropractors. The Committee on Civic Policy has fully demonstrated the wisdom of the establishment of such a body by its investigation of pay clinics, its gathering of information in support of the endeavor to rid the city of quacks and charlatans, and most important of all, by the foundation of *Medical Week*.

Our Society has been especially fortunate in having as its President during the past year Dr. Orrin S. Wightman. Under Dr. Wightman the Society has won the highest position it has yet attained. We have become a definite force in the metropolis. This success has been due in no small measure to Dr. Wightman's ready response to any call from the community and to his cordial participation in movements for social betterment.

The year before us should be signalized by a marked advance towards a place of recognized leadership in matters of public health. This may be accomplished in two ways. On the one hand, we need greater professional solidarity. This we may obtain by continual interchange of views in *Medical Week*. This publication has

* Read at the Meeting of the Medical Society of the County of New York, January 22, 1923.

more than justified its existence from its first issue. Its usefulness is evident to anybody who turns it pages. We hope it will grow as it deserves. On the other hand, we need to educate the public to look to the physician as the authority in his field. It is impossible to overemphasize the importance of this task. Our value to the community depends very largely upon the regard in which we are held by the community. We are the *natural* leaders in all matters of public health, but we are not always the *actual* leaders. The standard is too often seized by persons with more zeal than discretion, while we stand in the background. This state of affairs is of no benefit to us, and it is positively harmful to the community, since it means that the public health is being cared for primarily by the comparatively inexpert. In this respect we are not playing our proper rôle. What can we do to mend this condition?

In the first place, we can familiarize the public with the achievements of the medical profession. It is our task to bring before the public in a dignified way information regarding the advances which are continually being made in medicine. An excellent step in this direction is being taken by the American Medical Association, which is about to begin the publication of a magazine called *Hygeia*. This magazine is for the public. By means of articles upon subjects of general interest, couched in untechnical language, but written by experts, it will strive to dispel misunderstandings and to create a closer bond between the physician and the layman. The first issue of *Hygeia* appears in March. We wish it every success.

For the same general purpose our Society should organize a Bureau of Publicity, perhaps better named a Bureau of Information. This Bureau might form affiliations with societies in other counties. Its object would be to obtain from competent physicians articles upon timely topics, to be published in the lay press as coming from the Society and bearing its endorsement.

In our relation to the public we have been handicapped by our virtues. Our opposition to advertisement has worked against us in a double manner: it has tended to suppress even the legitimate presentation of our activities, and it has thus yielded the field of publicity to less scrupulous practitioners. Similarly, our legislative activity at Albany, although it is in the interest of the public, has given the public an erroneous idea of our attitude. It is our duty to be on guard against ill-timed and ill-advised legislation. The so-called health bills which are introduced into the legislature are drawn by professional philanthropists without the advice of the best physicians. They are bills that responsible members of our profession are bound to oppose. We make trips to Albany to protect our profes-

sion and to protect the public from the results of these pernicious bills. This is a service of which we have a right to be proud, but what effect does it have upon our standing before the public? To the public we appear as always opposing something. We are looked upon as reactionary and as uninterested in progressive health legislation. Our energies and our resources are exhausted in fighting bad bills. We give the impression of being negative instead of positive, destructive instead of constructive. Here is an unutilized opportunity. Without ceasing to oppose detrimental legislation, we can take a leading part in the effort to remedy conditions by health work in various lines, thus avoiding the necessity for new laws. In this way, instead of acting solely on the defensive, we can assume the offensive. Such a course would aid us immensely in winning recognition as leaders in matters of public health.

We may well ask ourselves whether the time has not come for a more charitable attitude towards the ill-informed but earnest uplifter, and whether we might not co-operate with him for the sake of the public. At present, the uplifter takes the lead in public health movements in default of any better leadership. We have excluded ourselves. In justice to our profession, ought we not to abandon this aloofness and identify ourselves with the leadership of movements which we are especially fitted to guide? If we looked at this question in a merely selfish spirit, we might feel like answering it negatively. As Dr. Richard Cabot has pointedly remarked, however, the physician is continually cutting off his own income by advocating preventive measures. He persuades people to be vaccinated against typhoid. There goes one slice of his income. He educates the public to the point of protecting itself against infectious diseases by means of quarantine. There goes another slice of his income. He urges precautions which reduce the number of industrial accidents. There goes still another slice of his income. And everybody takes his action as a matter of course! The fact that it is taken in this manner is the tribute our profession has won by its self-forgetfulness. Let us win it afresh by giving our support conspicuously to the cause of public health.

Meanwhile we cannot relax our vigilance against mischievous legislation, such as the various bills to regulate nursing, which transfer the control of nursing from the physician and the hospital trustees, to Albany. This is an effort to make nursing a learned profession instead of a practical profession, with the result that nurses are being educated for public health work, social service, and educational activities, at the neglect of being prepared for their real work, the care of the sick. Fully eighty per cent of the demand

for nurses is for care of the sick at the bedside; only a scant twenty per cent is wanted for public health work. As a consequence, nurses are not being educated as well as formerly in the fundamental work of caring for the sick; instead, they are infected with a smattering of medical textbook lore and sociology. They are being taught the significance of nitrogen retention in the blood rather than how to make a patient suffering from Bright's disease comfortable. They look upon the hospital as a mere laboratory where in brief periods they may pick up a superficial knowledge of nursing, and thus they force the hospital management to the enormous expense of running the institution by means of paid graduate nurses. In addition, the eight-hour day is being demanded for nurses. This innovation would make the cost of nursing prohibitive to the public.

There is one aspect of our relation to the public which requires special notice. Why are there more quacks than legitimate practitioners in New York? First, because as a profession we have so thoroughly shunned publicity that the public has not been informed of the achievements of medical science. By properly directed publicity we can overcome this defect. Secondly, because with the rapid advance in the science of medicine physicians have been so keen to treat disease by the latest laboratory methods that they have forgotten the art of relieving the suffering of the patient who is at the moment afflicted with a particular disease. It is true that we are dependent upon laboratory methods for the advancement of medicine. After the disease has once been diagnosed, however, it is important that we treat the patient suffering from the disease and not the disease. Patients are far more interested in the prompt relief of their suffering than in the determination of their metabolic rate or in their nitrogen retention. If physicians had used manual therapy in selected cases, they would not have found their patients leaving them for osteopaths and chiropractors who claim to cure any and every ailment by manipulation. In Sweden, where the value of manual therapy is recognized, there is no chiropractor problem.

Again, if physicians had utilized the power of suggestion in cases in which it was applicable, they would not have seen this valuable therapeutic agent monopolized by lay faith healers. The medical profession is by education and training equipped to bring to its aid all forms of therapy—drug, manual, hydrotherapeutic, or psychical. We are practitioners of the healing art. If a patient comes to one of us in distress, he should be helped, regardless of whether he has

a disease entity relievable by drugs, or a functional disorder that may be benefited by manual therapy or by hydrotherapy, or a psychoneurosis that may be assisted by suggestion. Pursuance of this policy will speedily reduce the number of quacks to whom the public falls victim.

One matter requires our immediate attention. This is the amendment of our charter in such a way as to allow us to exercise greater discrimination in admitting members. If it can be shown to the satisfaction of our Committee on Membership that a candidate's record has not been such as to warrant his admission, then we should have the power to reject the candidate, even though the acts to which objection is made are not capable of being proved by the rigorous tests of a court of law. We do not desire members whose immunity from punishment suggests the Scotch verdict, "Not proven," and we ought to have authority to exclude such men from our Society.

We belong to an ancient and honorable profession. Let us strive to be worthy of it by exemplifying the spirit of those masters of medicine to whom we owe our noble traditions.

Deaths

ALDEN, PHILO L., Hammondsport; University Buffalo, 1887; Member State Society. Died April 14, 1922.

JEWETT, FREDERIC A., Brooklyn; Long Island College Hospital, 1883; Fellow American Medical Association; American Electro-Therapeutic Association; Member State Society; Consulting Physician Bushwick and Eastern District Brooklyn Dispensaries. Died January 18, 1923.

MCCAFFERTY, JOHN A., Brooklyn; Fordham, 1916; Member State Society; Assistant Visiting Surgeon St. Catherine's Hospital. Died January 2, 1923.

TRAVIS, ALEXANDER HORTON, New York City; College Physicians and Surgeons, N. Y. 1887. Fellow American Medical Association. Member State Society. Died February 1, 1923.

WACHSMAN, MAX, Brooklyn; Albany Medical College, 1901; Fellow American Medical Association; Member State Society; Associate Aurist, Rhinologist and Laryngologist Williamsburg Hospital; Assistant Aurist Long Island College Hospital; Adjunct Otologist Polhemus Clinic. Died January 19, 1923.

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THE ANNUAL MEETING.

Early last June, and through the summer, the President, Dr. Booth, cherished the idea of assembling the members of the State Society, for the annual meeting of 1923, in some hotel, or group of hotels, away from a large city, where they could live intimately for four or five days and thus become more closely acquainted.

Many mutual advantages would thus be served. The renewal of old friendships, the development of new ones, the establishment of identities and the exchange of sentiments outside of the section meetings with opportunities for a general breaking down of local prejudices.

The ubiquitous automobile has stimulated nomadic habits in our patients to such an extent that physicians are constantly called upon to recommend colleagues in distant towns and cities, and although the "Green book" (our directory) is in valuable daily use for references, personal identification of representatives from every part of the State of course carries inestimable weight.

No one hotel, away from a large city, having adequate accommodations for our members and their families and friends, at a convenient time, we are doing the next best thing in bringing the meeting to the Waldorf-Astoria in New York where all of the Section meetings and commercial exhibits will be held under the one roof, in fact, upon one floor of this splendid hotel. Many of our members will find personal accommodations there too, if they ask early enough, and in the immediate vicinity are the Hotel McAlpin, the Pennsylvania, and many other houses with ample room for every member of the Society and their families.

New York is a very delightful city in May, and the guests who accompany members will find inexhaustible entertainment.

Every member should begin now to plan his engagements so that he may come to this meeting. New York extends a warm welcome.

N. B. V. E.

DR. ROBERT JOYCE.

On March 1, 1923, Dr. Robert Joyce will have practiced medicine fifty years. A member of the New York and Bronx County Societies continuously until his removal to Monroe, Orange County, about two years ago, for many years a surgeon to the New York Fire Department, physician to the New York Catholic Protectors, a member of the first staff of the Fordham Hospital, a man of broad culture, a clear and fearless thinker, hiding under a gruff exterior a tender sympathy, a soft heart, and devoted professional loyalty.

We congratulate him upon his accomplishments and trust that he will enjoy many years of comfort and happiness in continued service.

N. B. V. E.

DR. CHARLES HERRMAN.

We are very happy to announce that beginning with the March number, Dr. Charles Herrman will write a series of articles on "Recent Progress in the Diagnosis and Treatment of the Communicable Diseases of Childhood."

This will include Measles, Scarlet Fever, Diphtheria, Whooping Cough, Varicella, Rubella, and the Fourth Disease. Each article will be of about one thousand words. The JOURNAL is most fortunate in securing them.

The sequelæ of communicable diseases in childhood are of such serious importance that all physicians should constantly study their recognition and proper treatment.

N. B. V. E.

IN RE THE VOLSTEAD ACT.

Intrenched misinformation and complaisant inconsistency die hard. In filing an answer to the suit brought by Dr. Samuel W. Lambert and 103 other influential physicians in an effort to have the Volstead Act modified so that physicians may prescribe such alcoholic remedies as they judge necessary or expedient, Assistant U. S. Attorney Clark declares that to grant permission to physicians to use their discretion in prescribing alcoholics would be to defeat the purpose of the National Prohibition Act. This answer, however, is not a ruling; the latter can be made only by a court, and the result is awaited with interest.

Meanwhile, Messrs. Edward and James Burke, Ltd., makers of Guinness' Stout, brought suit, praying that the Federal Authorities be enjoined from interfering with its sale for medicinal purposes.

As an answer, in an effort to influence the Court to refuse the injunction, U. S. Attorney Clark denies that the beverage in question has any medicinal or therapeutic utility. Someone has fooled Mr. Clark.

Mr. E. C. Yellowley, acting prohibition director, thinks he sees an inconsistency in the

fact that of the 104 physicians forming the organization led by Dr. Samuel W. Lambert to test the constitutionality of the Volstead Act, only 46 have obtained permits to prescribe liquor. Here is no inconsistency. On the contrary, such omission and refusal to ask for a permit to do what their license to practice medicine already covers, is in reality an indignant protest. There is nothing illogical in refusing to ask permission of an official who you believe lacks proper authority to grant permission. Had it not been for the fact that omission to apply for permits under the Act would have militated gravely against the best interests of our patients, most physicians would have joined in such a protest.

Another side of this much discussed Volsteadism has finally been presented for study. U. S. Senator Spencer, of Mississippi, has introduced in the Senate a bill providing for a commission to investigate the question of what alcoholic content makes a beverage intoxicating. This seemed quite elementary to many people who suffered under it, when the Act under consideration took effect over three years ago. The proposed commission will be under the supervision of the Secretary of Agriculture of the United States, and will report its findings "as soon as possible."

Later developments, taking up the occurrences chronologically, include argument heard by Judge Knox, in the Federal Court during the last week in January, in a suit brought against Prohibition Director Yellowley and Wm. Hayward, United States Attorney, by Dr. Samuel W. Lambert as president of the Association for the Protection of Constitutional Rights, attacking the constitutionality of the Volstead Act, in so far as it limits the quantity of spirituous liquors a duly licensed physician may prescribe.

An application was also made by Dr. Lambert to restrain the prohibition officers from interfering with him in prescribing liquors for his patients for medicinal purposes. The learned Judge reserved his decision, after argument of counsel, during which his Honor suggested (it is reported) that the proper course for Dr. Lambert to pursue would be to prescribe more than the legal amount of liquor, and then challenge the Volstead Act when brought into court under arrest.

This seems to many of us to be far from "the proper course" for a law-abiding physician, especially since the dispensing of an amount now held to be illegal would involve a druggist, jeopardizing his deposit and entailing a forfeit of his license, at least temporarily. We feel that our champion, Dr. Lambert, and his associates are taking the dignified course, the outcome of which would not be in doubt a day if common sense and equity and not law were in the ascendant.

A. W. F.

FURTHER ABRAMS POSSIBILITIES.

If we are to accept what Dr. Albert Abrams, the Miracle Man, tells us, a tremendous problem and a great increase of difficulty in administering law are spread before the eyes of the Prohibition Director and of the officers charged with the duty of enforcing the Harrison Narcotic Law.

Abrams tells us that every drug has a certain vibration rate to which is due the drug effect produced. He tells us that his "oscilloclast" is an instrument capable of producing vibrations of varying rapidities; and that after applying this instrument he can move its indicator to a number corresponding to the vibration rate of the drug otherwise administered, and let her go, and the therapeutic action of the drug is thereby secured.

If we are to accept what Abrams tells us, there is a stunning field open for consideration and immediate action by the Prohibition Officers; for all the bibulous or the tippler needs to do is to lease from Abrams an "oscilloclast" (under contract not to open it and look at it), apply it to himself, set the indicator at the vibration number of alcohol, and the good old exhilarating or intoxicating result will follow.

If we are to accept what Abrams tells us, we can get the scale of numbers necessary and then set the indicator of the "oscilloclast" for a Bronx cocktail, or a Scotch highball, or a Russian Küm-mel, or a Hungarian Slivovitz, and there you are, exempt from present prohibitory influence, independent of doctors' prescriptions and of bootleggers' uncertainties, and of the charity of friends with lockers.

If we are to accept what Abrams tells us, we can imagine an improved "oscilloclast" furnished with three or four separate applicators with as many indicators, so that we may say "Have one with 'me,'" and "What's yours?" to several parched friends at once, in the good old neighborly way. No one need any longer envy the celebrated "inebriated ibex, that leaps from jag to jag."

If we are to accept what Abrams tells us, the morphine figure in the indicator of vibratory rate, as well as the cocaine figure, will give the Harrison Narcotic Law agents a deal of anxiety; for will not the addict be perfectly satisfied with the drug result of the "oscilloclast's" activity, and snap his fingers at the tabooed drug, as well as at the gum-shoe sleuths?

A. W. F.

HYGEIA, THE LAY MEDICAL MAGAZINE.

Authorized by the House of Delegates of the American Medical Association at the annual meeting in Boston, in 1921, the Trustees of the Association have perfected the plans for the publication, in April, 1923, of the first number of a lay medical magazine, entitled "*Hygeia, a Journal of Individual and Community Health.*" Its scope will be as follows: To carry to the lay public authoritative information concerning the purposes and ideals of scientific medicine, to tell the layman what progress has been made in medical science, and to give him dependable information concerning the scientific application of demonstrated facts for the protection of health and for the prevention of disease.

While a large majority of the Delegates favored the publication of this magazine, a considerable number feel that the experiment is hazardous, upon the principle "a little learning is a dangerous thing." However, as an authorized step, it is incumbent upon all our vast membership to give the idea a fair trial, and to support the publication in all sincerity for a period of two years at the shortest, advocating its circulation and promoting its subscription list, to the best of our ability.

A great advantage, at least at first, will accrue in this respect; it will be perfectly practicable to advise a subscription to the magazine and its study to patients who demand to be instructed concerning their diseases and ills, assuring them conscientiously that—in their ignorance of hygiene, physiology and ordinary health rules—a careful perusal of the periodical will give them information which will be most helpful, and most nearly intelligible.

Let us all urge, therefore, that our enquiring patients subscribe at once for *Hygeia*, with the understanding that the first number will be off the press in April next.

The subscription price is \$3 per year, and blanks for subscription will be available from the secretaries of the various State Medical Societies. To Fellows of the American Medical Association and to subscribers to the *Journal of the American Medical Association*, the price will be \$1 for eight months, and thousands should send in cheques at once, that our enterprise may be handsomely and promptly supported.

Thus goes forth little David with his sling, advancing not on a single Goliath, to pierce his pasteboard skull of superstition with the pebble of scientific truth, but advancing on the hosts of Armageddon; upon the pathies who keep their faces straight and try to believe in themselves, and upon the various jazz cults, wild and weird, founded upon fanciful absurdities, or blatant ignorance, or plain lunatic delirium.

A. W. F.

COMMITTEE ON LEGISLATION.

The active work of the Committee on Legislation is beginning, and in behalf of the members of the State Society we hope that the County Legislative Committees will function as well, if not much better than they did last year, and that our mutual efforts to promote rightful legislation in behalf of the Public Health, as viewed from the standpoint of the physician, will be crowned with success.

The medical law of this State should be changed, in regard to the archaic methods of detection and prosecution of illegal practitioners, along the lines of the bill which was introduced last year.

The excellent functions of the State Board of Medical Examiners warrants the fact that New York State needs no separate boards in examinations for any groups who practice various branches of the healing art.

The fact that New York State has always been looked up to as a leader in educational requirements and examinations, and that most States crave reciprocity relations with New York State, should influence all physicians and lay people that their interests for protection rest in safe and sound hands.

A divided response in governmental functions toward the health of the people results in inefficiency.

J. N. V. V.

PROPOSED AMENDMENT TO THE PENAL CODE FOR PHYSICIANS.

The American Birth Control League is planning to amend the Penal Code for Physicians this winter. They claim that their amendment, which is copied below, has the approval of the Health Committee of the New York Academy and of the President of the Medical Society of the County of New York. We are informed that their claim is absolutely false and without foundation. Their amendment follows:

Proposed Amendment to Sec. 1145 of the Penal Code for Physicians:

"The giving by a physician, licensed to practice, to any person applying to him or her, of information or advice in regard to, or the supplying by such physician, or on a prescription signed legibly by him or her, to any person applying to him or her of any article or medicine for the prevention of conception is not an offense under this article."

Many physicians of the State and the Medical Society of the State of New York have received cards with a copy of this amendment printed thereon and closing with a sentence approving said amendment, to be signed by their names and addresses.

The Committee on Legislation invites comment on this amendment.

J. N. V. V.

AMERICAN MEDICAL ASSOCIATION.

EASTERN DISTRICT—OFFICIAL TOUR TO NATIONAL CONVENTION.

San Francisco, California.

The American Medical Association Convention will be held at San Francisco, California, June 25-29, 1923. The sub-committee appointed by the Secretaries of the Medical Societies of the Eastern States have arranged for the following twenty-five day tour to San Francisco and return, stopping at interesting and important points. The details and arrangements of the trip will be assumed and handled by an experienced tourist representative who will accompany the party and take entire charge of the tour.

In order to be assured of special train privileges, it will be necessary to have one hundred and twenty-five or more persons subscribe to the tour.

The Committee extend to all who contemplate attending the convention a cordial invitation to join, the details of which follow in proper sequence.

SCHEDULE.

Friday, June 15th—Leave New York (New York Central R.R.) 5:30 P. M., E.S.T.; arrive Albany (New York Central R.R.) 8:55 P. M. Dinner in New York Central dining car. Leave Boston (Boston & Albany R.R.) 2:10 P. M.; leave Springfield (Boston & Albany R.R.) 4:45 P. M.; arrive Albany (Boston & Albany R.R.) 7:55 P. M. (Combine with New York City delegation.) Leave Albany (New York Central R.R.) 9 P. M.; leave Utica (New York Central R.R.) 11:08 P. M.

Saturday, June 16th—Leave Syracuse (New York Central R.R.) 12:30 A. M.; leave Cleveland (New York Central R.R.) 8:30 A. M.; leave Toledo (New York Central R.R.) 10:15 A. M., C. T.; arrive Chicago (New York Central R.R.) 4 P. M. Breakfast and luncheon served in New York Central dining car. Transfer to hotel. Dinner provided. Transfer to A. T. & S. F. R.R. Terminal. Leave Chicago (A. T. & S. F. R.R.) 8:10 P. M.

Sunday, June 17th—Arrive Kansas City (A. T. & S. F. R.R.) 8:55 A. M. Breakfast served in A. T. & S. F. dining car. Two hour and twenty-five minute stop. Automobiles, sight-seeing tour of park and residential section included. Leave Kansas City (A. T. & S. F. R.R.) 11:30 A. M. Luncheon and dinner served in A. T. & S. F. R.R. dining car.

Monday, June 18th—Arrive Denver (A. T. & S. F. R.R.) 8 A. M. Breakfast served in A. T. & S. F. dining car. *Denver*—automobiles will be waiting to convey the party via Ralston and Clear Creek Valleys to the Summit of Lookout Mountain. Here a twenty-minute stop is made at the last resting place of the famous old scout, Buffalo Bill. Leave Denver (A. T. & S. F. R. R.) 1 P. M. Luncheon served in A. T. & S. F. dining car. Arrive Colorado Springs (A. T. & S. F. R. R.) 3:30 P. M. *Colorado Springs* is one of the most popular tourist resorts in the United States. Automobiles will meet our party at station for ride through Crystal Park and Garden of the Gods—returning to train. Leave Colorado Springs (A. T. & S. F. R.R.) 7 P. M. Dinner served in A. T. & S. F. dining car.

Tuesday, June 19th—Arrive Albuquerque (A. T. & S. F. R.R.) 11 A. M. Opportunity to visit Harvey Museum. Leave Albuquerque (A. T. & S. F. R.R.) 1 P. M. Breakfast, luncheon and dinner served in A. T. & S. F. dining car.

Wednesday, June 20th—Arrive Grand Canyon (A. T. & S. F. R.R.) 5 A. M. The *Grand Canyon* of Arizona is one of the most stupendous spectacles in nature. Opportunity will be given to descend to the bed of the Colorado River or to ride in comfort around the rim of the Canyon. Breakfast, luncheon and dinner will be served at the El Tovar Hotel. Leave Grand Canyon (A. T. & S. F. R.R.) 8:30 P. M.

Thursday, June 21st—Arrive San Bernardino (A. T. & S. F. R.R.) 1:30 P. M. Breakfast and luncheon served in A. T. & S. F. dining car. *San Bernardino*—automobiles will convey the party via Redlands, Smiley Heights, Mount Rubidoux and Magnolia Avenue to the Mission Inn, Riverside, where dinner will be served. A special organ recital will be given. There will be ample time to enjoy the many attractions at this historic resort. Leave Riverside (A. T. & S. F. R.R.) 8 P. M.; arrive Los Angeles (A. T. & S. F. R.R.) 9:45 P. M. Passengers and hand baggage will be transferred to Hotel Rossllyn, where lodging will be provided (two persons to each room with bath).

Friday, June 22nd—As the many points of interest will attract the members of the party, meals while in Los Angeles have not been included. Passengers and hand baggage transferred to Southern Pacific R.R. Terminal. Leave Los Angeles (Southern Pacific R.R.) 8 P. M.

Saturday, June 23rd—Arrive Merced (Southern Pacific R.R.) 7:50 A. M. Breakfast in Southern Pacific dining car; leave Merced (Yosemite Valley R.R.) 8:05 A. M.; arrive El Portal (Yosemite Valley R.R.) 11:45 A. M. *Yosemite National Park*, located in the heights of the Sierra Nevada Mountains in California, 4,000 to 9,000 feet above sea level and covering an area of 719,622 acres, embraces so much in nature that one feels that this realm of enchantment was created solely for the purpose to which it is today devoted—for the recreation and enjoyment of mankind. *Schedule of Yosemite Tour*—Leave El Portal (automobile) 12:40 P. M.; arrive Yosemite Lodge 4:45 P. M. Automobile tour of upper and lower floors of the valley. Luncheon, dinner and lodging provided at the Yosemite Lodge.

Sunday, June 24th—Breakfast Yosemite Lodge, 6:15 A. M. Leave Yosemite Lodge (automobile) 7 A. M.; arrive Mariposa (Grove of Big Trees) 11 A. M. Box luncheon at Big Trees Grove. Leave Big Trees (automobile) 12:05 P. M.; arrive Glacier Point (automobile) 3:45 P. M.; leave Glacier Point (automobile) 4:45 P. M.; arrive Yosemite Lodge (automobile) 7:30 P. M. Dinner Yosemite Lodge. Leave Yosemite Lodge (automobile) 8:45 P. M.; arrive El Portal (automobile) 9:40 P. M.; leave El Portal (Yosemite Valley R.R.) 10 P. M.

Monday, June 25th—Arrive Merced (Yosemite Valley R.R.) 2:00 A. M.; leave Merced (Southern Pacific R.R.) 2:15 A. M.; arrive San Francisco (Oakland Pier) 6:30 A. M.; arrive San Francisco (Market Street) 7:00 A. M. Passengers, hand baggage and trunks, transferred to hotels. (Hotel accommodations while in San Francisco not included.)

Monday, June 25th to Friday, June 29th—Attending American Medical Association Convention, San Francisco. For those not actively engaged in the work of the Convention, there is no city in the Great West, where time can be spent more advantageously than in San Francisco. Beautiful Golden Gate Park, the Presidio, Mount Tamepais and Berkeley, with the ever interesting Chinatown, are but a few of the many points of interest which may be visited.

Friday, June 29th—Leave San Francisco (Market Street Wharf) (Southern Pacific R.R.) 10:20 P. M.

Saturday, June 30th—En route. Breakfast, luncheon and dinner served in Southern Pacific dining car.

Sunday, July 1st—Arrive Portland (Southern Pacific R.R.) 7:20 A. M. Breakfast served in Southern Pacific dining car. *Portland*—Nature has bestowed many of her rarest gifts upon the territory surrounding Portland. This combination of natural and artificial beauty is best exemplified in the Columbia River Highway Drive, which is included in the itinerary at this important stop-over point. Luncheon and dinner served at Hotel Benson. Leave Portland (Union Pacific R.R.) 11:30 P. M.

Monday, July 2nd—Arrive Seattle (Union Pacific R.R.) 6:30 A. M. *Seattle*—A short stop will be made in this City. Automobiles will transfer party to the Hotel Washington where breakfast will be served. Short auto tour after breakfast terminating at Canadian Pacific S.S. Wharf where steamer will be boarded for daylight sail across Puget Sound. Leave Seattle (Canadian S.S. Lines) 9:00 A. M. Luncheon served on steamer. Arrive Victoria (Canadian Pacific S.S. Lines) 1:15 P. M. *Victoria*—the capital of British Columbia is always of interest to the tourist. A short automobile trip is included in visit to this picturesque city. Leave Victoria (Canadian Pacific S.S. Lines) 2:30 P. M.; arrive Vancouver (Canadian Pacific S.S. Lines) 7:00 P. M. Transfer to Hotel Vancouver, where dinner will be served. Evening in Vancouver. Cars will be parked, retire on train.

Tuesday, July 3rd—Leave Vancouver (Canadian Pacific R.R.) 3:00 A. M. Breakfast, luncheon and dinner served in Canadian Pacific dining car. With the snow-capped peaks of the Canadian Rockies always in view your daylight ride through the Fraser and Thompson River Canyons will prove of unusual interest. Arrive Revelstoke (Canadian Pacific R.R.) 7:00 P. M.

Wednesday, July 4th—Leave Revelstoke (Canadian Pacific R.R.) 12:01 A. M.; arrive Lake Louise (Canadian Pacific R.R.) 9:30 A. M. Breakfast served in C. P. R. R. dining car. Passengers transferred to Lake Louise. Luncheon and dinner served at the Chateau Lake Louise. *Lake Louise*—the Pearl of the Canadian Rockies is one of the "most perfect bits of scenery" in the world. A lake of the most exquisite coloring with sombre forests and cliffs that rise from its shores, the snow-crowned peaks that fill the background, glaciers centuries old, and the superb location of the wonderful Chateau will long linger in your memory. Leave Lake Louise (Canadian Pacific R.R.) 9:25 P. M.; arrive Banff (Canadian Pacific R.R.) 10:30 P. M. Cars parked, retire on train.

Thursday, July 5th—Passengers transferred to Banff Hot Springs Hotel. *Banff*—the gateway to the Canadian National Parks is the last of the scenic attractions offered by this route of a "Million Wonders." The famous Hot Springs Hotel, where breakfast, luncheon and dinner will be served is of unusual interest. The Cascade Mountains to the North—Mount Peeche to the South—with the famous Bowie River at their base, all combine to add color and variety to the wonderful setting of this world renowned tourist resort. Leave Banff (Canadian Pacific R.R.) 10:10 P. M.

Friday, July 6th—En route through the fertile wheat producing sections of Alberta and Saskatchewan. Breakfast, luncheon and dinner served in Canadian Pacific dining cars. Brief stops at Medicine Hat and Moose Jaw.

Saturday, July 7th—Arrive Winnipeg (Canadian Pacific R.R.) 8:00 A. M. Breakfast served in Canadian Pacific dining car. *Winnipeg*—Automobile sight-seeing tour covering points of scenic interest which the "Frontier City" so amply provides will be included. Luncheon served at Royal Alexandria Hotel. Leave

Winnipeg (Canadian Pacific R.R.) 4:15 P. M. Dinner served in Canadian Pacific dining car.

Sunday, July 8th—Arrive St. Paul (Soo Line) 8:00 A. M. Breakfast served in Soo Line dining car. *St. Paul*—Automobile tour of the "Twin Cities" covering the many attractive points of commercial and scenic interest has been arranged. Luncheon and dinner will be served at the St. Paul Hotel. Leave St. Paul (Chicago & Northwestern R.R.) 8:15 P. M.

Monday, July 9th—Arrive Chicago (Chicago & Northwestern R.R.) 8:00 A. M. Breakfast served in C. & N. W. dining car. Train transferred to New York Central R.R. Terminal. Leave Chicago (New York Central R.R.) 10:25 A. M. Luncheon and dinner served in N. Y. C. dining car.

Tuesday, July 10th—Arrive New York (Grand Central Terminal) 9:22 A. M. Breakfast served in N. Y. C. dining car.

COST OF TOUR

The following fares include transportation, Pullman accommodations, all meals enroute and features at stop-over points as indicated in itinerary:

One person in lower Pullman berth.....	\$457.15
One person in upper Pullman berth.....	437.15
Two persons in Compartment (each).....	491.10
Two persons in Drawing room (each).....	516.15
Three persons in Drawing room (each).....	477.10

RESERVATIONS

All applicants desirous of joining the tour should communicate with Mr. J. S. McAndrew, Tour Manager, Lifsey Tours, Inc., Longacre Building, 1472 Broadway, New York, enclosing the sum of Fifty (\$50.00) dollars for each person, receipt for which will be given and amount applied to total cost of tour. The advance payment will be refunded if for valid reason applicant finds it necessary to abandon tour. Notice to this effect must be given on or before June 15th when final payment is due.

MEMBERSHIP TICKETS

Membership tickets will be mailed to each member of the party. This ticket will show the assignment of space in sleeping cars and will entitle the bearer to all features included in itinerary.

BAGGAGE ARRANGEMENT

Each passenger will be allowed 150 pounds of baggage free. Special baggage car will be provided with Baggage Master in charge. Passengers may have access to their baggage at all points en route. Special baggage tags will be furnished each member of tour. Please write on tag, your name, home address, and hotel selected in San Francisco. Trunks, with tags attached, should be forwarded to New York Central Railroad Station, where station baggageman will see that the baggage is placed in the A. M. A. Special baggage car.

As a means of identification, hand baggage should also have a similar tag, securely attached, with name and home address plainly shown.

Correspondence

The Council at a meeting held in Albany, April 20, 1922, moved, seconded and carried

That the Journal be not used in any way suppress any expression of opinion; and that its correspondence columns be open for all proper communications; and that "proper" communications will be deemed those which are not slanderous or libelous in their nature.

THE GLEN SPRINGS, Watkins, N. Y.,
February 1, 1923.

Editor, N. Y. STATE JOURNAL OF MEDICINE:

In our January, 1923, issue our colleague, Dr. George E. Barnes, of Herkimer, writes to you concerning an editorial by me upon "Volstead Prohibition and the Physician," and appears distressed by what he calls "the wail of A. W. F." against the limitations upon the use of alcoholics as medicines, and asks you to let the readers of the JOURNAL know "on what proven scientific grounds you consider alcoholics to be in any cases the most desirable medicines."

I beg you will let me draw aside the filmy veil of near-anonymity; and, revealing myself as "A. W. F.," answer for you the growl of G. E. B. with a partial repetition of my "wail."

It was not at all the intention of the editorial to go beyond its limits. It is entirely outside of its scope to take up the questions raised by Dr. Barnes as to specific action of alcohol in disease, the therapeutic action of beverage alcohol, the superiority if any of such beverages as food, their superior value as stimulants, their value as vasodilators, etc., etc., to enumerate some of the points upon which Dr. Barnes asks you to enlighten him.

The gist of the editorial contention is summed up in this sentence of the editorial: "Shear the question of all outside arguments and all obscuring platitudes, and come down to the consideration of the authority and the responsibility for prescription of remedies, in kind, quality and frequency; they are the physician's, and his only."

The columns of our JOURNAL are wide open to Dr. Barnes for sustaining any thesis covering his contentions or inquiries that he may desire to advance; and he will be much more forceful as protagonist than as an interrogator of the Editor.

Yours sincerely,

ALBERT WARREN FERRIS.

Panama, N. Y., Jan. 19, 1923.

Secretary of the Medical Society of the State of New York:

DEAR SIR:

Our village at present is without a resident physician, and I have been referred to you, thinking that you might know of some young or middle aged man that might be prevailed upon to locate here, if some inducements were offered. If qualified, he would be appointed Health Doctor, also Poor Doctor for the town, which pays between four and five hundred dollars per year. Our village has a population of three hundred, in a thickly settled locality. Have one improved highway leading to the South and expect this summer to be connected with Jamestown by state road, and there is no physician within a radius of seven miles, and only one that near. Have a high school and two churches.

Trusting to her from you in regard to this and thanking you in advance, I am,

Respectfully,

A. B. HOITINK,
Town Clerk.

NOTES FROM THE STATE DEPT. OF HEALTH.

DR. WADSWORTH REPORTS ON INTERNATIONAL CONFERENCE FOR STANDARDIZATION OF SERUMS.

Dr. Augustus B. Wadsworth, Director of the Division of Laboratories and Research of the New York State Department of Health, recently represented the Rockefeller Institute at the meeting in Paris of the Second International Conference on the Standardization of Serums and Serological Tests. This Conference was held under the auspices of the Health Committee of the League of Nations, November 20-26 inclusive, at the Pasteur Institute in Paris. Professor Theodore Madsen, President of the Health Section of the League of Nations, presided at the Conference. Opening addresses were made by Dr. Roux, the discoverer of diphtheria toxin, and the French Minister. Dr. Wadsworth served as Chairman of the sub-committee on the standardization of antimeningococcus serum. Discussing the work of the Conference after his return to Albany, Dr. Wadsworth said:

"Progress toward international standardization of serums and serological tests is necessarily slow because of the differences in the methods that are used in the several countries, but for this very reason the importance and practical value of the work is all the more apparent. Despite the many different points of view, the practical results from the free discussion were most encouraging. If such conferences can be repeated, it is not difficult to understand that the ultimate results in improvement of methods used throughout the civilized world will be of the greatest significance for humanity. In the discussion of such problems the political differences between nations, even the present stupendous problems of world politics, are forgotten in the search for truth. To me, personally, the discussions were of special interest, on account of their direct bearing on the work that is being done in New York State. Possibly nowhere has the standardization of laboratory work from the public health point of view, and as a whole, progressed so far or to such a practical stage as it has in New York State. Thus the methods that have been developed in other countries effectively were all of great interest, suggesting ways in which our procedure might be improved or perfected."

CHILD HEALTH CONSULTATIONS.

With the aid of the appropriations made by the Davenport-Moore Law of 1922, the Department has been able to extend the scope of the child health consultations conducted by the Division of Maternity, Infancy and Child Hygiene. This field work was carried on during the summer and fall of 1922 by means of a traveling automobile unit which included two physicians and two nurses. The object is to discover defects and conditions in children before school age in order that they may be corrected before serious illness results. Special effort is made to reach well children since it is assumed that sick babies are as a rule receiving proper medical attention. The reports of the examining physicians are brought to the attention of the family physician and the local nurse in order that the fullest possible co-operation may be obtained in following up these examinations and insuring the correction of defects. As an example of the work the report on ten consultations held in Schuyler County during the month of September shows that 169 children in the more remote rural communities of the county were thoroughly examined by physicians of the traveling unit. Of these children, 93 were found to have defects of the nose and throat, 72 defects of the feet, while 37 were suffering from insufficient or improper nutrition. A total of 395 defects was recorded. Arrangements were made in advance for the holding of the consultations by active local committees of women

after obtaining the approval of the local health officer and other local physicians.

ANOTHER PHYSICIAN REFUSES TO GIVE ANTITOXIN.

A second instance has recently come to the attention of the Department of a physician refusing to give antitoxin. One of the sanitary supervisors reported the death from diphtheria of a patient 39 years of age, first seen by a physician, according to the information given, on the date when he was taken ill. The physician, who is also health officer of the rural community, not only refused to give antitoxin but advised against its use, since, as he said, he regarded it as "positively dangerous." Ten days afterwards, when the patient was moribund, another physician was called who gave an intramuscular injection of 10,000 units of antitoxin without benefit. The sanitary supervisor attempted to convince the first physician of the desirability of giving antitoxin in diphtheria cases, but apparently without success. The situation is doubly unfortunate in that this practitioner is the only physician within a radius of fifteen miles.

PRENATAL CONSULTATIONS.

The Division of Maternity, Infancy and Child Hygiene is organizing prenatal consultations in various parts of the State. Midwives are especially requested to bring their patients to these consultations for examination and instruction, and there has been good co-operation. No woman is examined or given instructions who has engaged the services of a physician for her confinement or who has received medical treatment unless the request for such service is made by the physician. These consultations are intended to serve as demonstrations and to stimulate the community to organize permanent consultations with the aid of local physicians and nurses. The co-operation of women's organizations is sought in organizing the work and in providing various kinds of relief service. Demonstration consultations of this kind have recently been held in Yonkers, Port Chester, Rome, and Little Falls.

PROGRESS ON SCHICK TEST WORK.

Several of the Sanitary Supervisors report good progress in promoting Schick testing in various communities. In Syracuse up to January 15th a total of 7,122 tests had been performed. In Little Falls, 486 children have recently been tested, of whom 252 were positive; 152 of these were given three inoculations with toxin antitoxin, 46 two inoculations, and 30 one inoculation. One of the most complete demonstrations has been made in Auburn, where a well organized campaign succeeded in so educating public opinion that 58% of the 7,105 school children have been Schick tested. Out of the total of 4,071 children tested, 489 gave a positive reaction and 83.6% of these received the full immunization of three doses, while 90% have been given at least one dose of toxin antitoxin. As a result, it is already probable that 64% of non-immunes of the school population has been cut in half.

BREAST FEEDING DEMONSTRATION.

The Division of Maternity, Infancy and Child Hygiene is conducting a breast feeding demonstration on Long Island, including Nassau County and parts of Suffolk County. This work has been organized along the lines of a similar demonstration which is being carried on in Brooklyn by the Brooklyn Pediatric Society. The mother of each baby born in the district is followed up by nursing visits until she is able to come to the consultation for the purpose of instructing her in the establishment and maintenance of successful maternal nursing. This is the first time that such a demonstration has been undertaken outside of a city in this State, and it is expected that it will serve as a model for work to be done in other rural communities.

PRUNES.

Contributions Solicited.

Fellow Workers.

President Wilson is fond of telling a story about an old teamster. This old fellow said to the treasurer of the concern one day:

"Me and that off horse has been working for the company seventeen years, sir."

"Just so, Winterbottom, just so," said the treasurer, and he cleared his throat and added: "Both treated well, I hope?"

The old teamster looked dubious.

"Well," he said, "we wus both tooken down sick last month, and they got a doctor for the hoss, while they docked my pay."

Wanted to Make Her Happy.

In one of the many hospitals in the South a bright busy-looking and duty-loving woman bustled up to one of the wounded soldiers who lay gazing at the ceiling above his cot. "Can't I do something for you, my poor fellow?" said the woman imploringly. The "poor fellow" looked up languidly. The only things he really wanted just at that time were his discharge and a box of cigars. When he saw the strained and anxious look on the good woman's face, however, he felt sorry for her, and with perfect *sang-froid* he replied: "Why, yes; you can wash my face if you want to."

"I'd be only too glad to," gasped the visitor eagerly.

"All right," said the cavalier gallantly, "go ahead. It's been washed twenty-one times already today, but I don't mind going through it again if it'll make you any happier."

Justified.

JOHNNY—"What makes that new baby at your home cry so much, Tommy?"

TOMMY—"He don't cry so much; and, anyway, if you had all your hair off and your teeth out and your legs were so weak you couldn't stand on them, I guess you'd feel like crying, too."—*The Cornelian*.

Anything for a Novelty.

By CAROLYN WELLS.

It does seem strange, but it is true,
Interest centers in the new.
One man's all through his being thrilled
By the new house he plans to build.
Another one no way can look
But to reviews of his new book.
Another knows no charm in life
But contemplating his new wife.
And many people often are
Elated over a new car.
While pretty maids are certain that
Earth holds no joy like a new hat.

And yet—perhaps—and, also—maybe,
There is no thrill like a new baby!

"Are the directions clear to you now, Jefferson?"
"Yes, sah, all except one thing, doctah. Was I to take dose little pills externally or befo' meals?"—*Judge*.

Napoleonic.

An army travels on its stomach, said Napoleon. Many a young business man gets there on his gall.—*Louisville Courier-Journal*.

The Roasted Residuum.

When coming to town last night at the bridge near E. Cronk's home the omnibus caught fire. Luckily there was only one passenger besides the driver who had time to get out.—*Boonville correspondent of the Utica Observer-Dispatch*.

Her Sixth Sense.

STELLA—Margery seems to be a very gossipy sort of girl.

BELLA—Yes, she has a great sense of rumor.

Something Rotten in Denmark.

"Can you tell us what is the matter with our child?"

"I am not a doctor—I am an interpreter."

"Yes, but the child's French governess has gone away, and we can't understand what she says now."—*Klods Hans (Copenhagen)*.

Glum Prospect.

"Don't cry, little boy. You'll get your reward in the end."

"S'pose so. That's where I allus do git it."—*Life*.

Eventually, But Not Now.

One of our editorial colleagues says something: "A hearse is a poor vehicle in which to ride to church, why wait for it?"—*The Christian Register (Boston)*.

The Problems.

"Can I become a centenarian, doctor?"

"Do you drink, smoke, or go in for high living?"

"No."

"Then why do you want to be a centenarian?"—*Sans Gene (Paris)*.

As Easy as That.

There was a man in our town
Who was so wondrous wise,
He made and drank synthetic gin
And put out both his eyes.

And when he found his eyes were out
Did he curse with might and main?
Oh, not at all!—he tried Coué
And put them in again.

H. G. M'K.

Englewood, N. J.

Caught on the Run.

Private Banks had been the most bashful and retiring little man in the army. When women visited the camp he had always fled for shelter and stayed there until after they had left. So it came as a surprise when one of his former companions came across him in civilian garb and was introduced to a large, husky girl as Mrs. Banks.

When he was able to get Banks aside, he asked him how he had met his wife.

"Well," returned the little man meekly, "It was this way. I never did exactly meet her. She just kinder overtook me."—*American Legion Weekly*.

Honk, Honk!

"The road to the police court," mused the motorist, "is paved with good pedestrians."—*The Passing Show (London)*.

Medical Society of the State of New York

17 West 43rd Street, New York.

February 15, 1923.

The regular annual meeting of the Medical Society of the State of New York will be held on Tuesday, May 22, 1923, in New York City.

ARTHUR W. BOOTH, M.D., *President.*
EDWARD LIVINGSTON HUNT, M.D., *Secretary.*

17 West 43rd Street, New York.

February 15, 1923.

The regular annual meeting of the House of Delegates of the Medical Society of the State of New York will be held on Monday, May 21, 1923, in New York City.

ARTHUR W. BOOTH, M.D., *President.*
EDWARD LIVINGSTON HUNT, M.D., *Secretary.*

117th ANNUAL MEETING.

Tuesday, May 22nd.

SCIENTIFIC PROGRAM.

ARRANGED BY THE COMMITTEE ON SCIENTIFIC WORK.

Parker Syms, M.D., Chairman, New York City.
William D. Alsever, M.D., Syracuse.
Elias H. Bartley, M.D., Brooklyn.
Edmond E. Blaauw, M.D., Buffalo.
Paul B. Brooks, M.D., Albany.
S. Philip Goodhart, M.D., New York City.
Eugene H. Pool, M.D., New York City.
Harvey B. Matthews, M.D., Brooklyn.
Owen E. Jones, M.D., Rochester.

Sub-Committee on Clinics.

Seward Erdman, M.D., Chairman; William W. Herrick, M.D., Frederic W. Bancroft, M.D., James P. Erskine, M.D., Irving H. Pardee, M.D.

SECTION ON MEDICINE.

Chairman—WILLIAM D. ALSEVER, M.D., Syracuse.
Secretary—CLAYTON W. GREENE, M.D., Buffalo.

Tuesday, May 22nd, 9:30 A.M.

SYMPOSIUM ON DIABETES.

"Bicarbonate of Soda in Diabetes Mellitus," Herman O. Mosenthal, M.D., New York.
"Experimental Studies in the Use of Insulin," J. J. R. MacLeod, M.D., and Frederick G. Banting, M.D., Toronto. (By invitation.)
"Diabetic Gangrene," John R. Williams, M.D., Rochester.
"The Treatment of Diabetes, With and Without Insulin," Elliott P. Joslin, M.D., Boston, Mass. (By invitation.)

Wednesday, May 23rd, 9:30 A.M.

"Treatment of Certain Cardiac Irregularities with Quinidin," Robert L. Levy, M.D., New York City.

SYMPOSIUM ON THE DIAGNOSIS AND TREATMENT OF DISEASES OF THE BLOOD.

"Problem of the Primary Anaemias," Charles P. Emerson, M.D., Indianapolis, Ind. (By invitation.)
"Problem of the Leukemias," Thomas Ordway, M.D., Albany. (By invitation.)
"Treatment of Anaemia by Transfusion," William W. G. MacLachlan, M.D., Pittsburgh, Pa. (By invitation.)
Discussion opened by Nelson G. Russell, M.D., Buffalo.

Wednesday, May 23rd, 2:30 P.M.

"Studies on Absorption of Drugs," David I. Macht, M.D., Baltimore, Md. (By invitation.)

SYMPOSIUM ON SERUM THERAPY.

"Pneumonia," Rufus I. Cole, M.D., New York.
"Poliomyelitis, Epidemic Encephalitis, Bacillary Dysentery, etc.," Simon Flexner, M.D., New York.
"Fundamental Considerations in the Treatment of Meningitides," James B. Ayer, M.D., Boston, Mass. (By invitation.)

Thursday, May 24th
Clinics.

SECTION ON SURGERY.

Chairman—EUGENE H. POOL, M.D., New York.
Secretary—EMIL GOETSCH, M.D., Brooklyn.

Tuesday, May 22nd, 2:30 P.M.

"Surgical Treatment of Gastric and Duodenal Ulcer," Grant C. Madill, M.D., Ogdensburg.
Discussion by Walter L. Niles, M.D., and Harry M. Imboden, M.D., New York City.
"String Test for Diagnosis in Ulcer of the Stomach," Marshall Clinton, M.D., Buffalo.
"High Fixation of the Duodenum," Alfred S. Taylor, M.D., New York City.
Discussion by Charles J. Hunt, M.D., and Harry M. Imboden, M.D., New York City.
"Ankylosis, Its Importance and Treatment by Arthroplastic Measures," Andrew R. MacAusland, M.D., Boston, Mass. (by invitation.)

Wednesday, May 23rd, 9:30 A.M.

"X-Ray and Radium Treatment of Cancer," Francis C. Wood, M.D., New York City.
"The Present Status of Radiation in the Treatment of Carcinoma of the Breast," Burton J. Lee, M.D.
Discussion by Harvey R. Gaylord, M.D., and Bernard F. Schreiner, M.D., Buffalo.
"Precise Diagnosis of Carcinoma of the Rectum," Frank C. Yeomans, M.D., New York City.
"Some Abnormalities of the Urinary Tract in the Male, with Surgical Measures of Correction," Oswald S. Lowsley, M.D., New York City.

Wednesday, May 23rd, 2:30 P.M.

"Surgical Treatment of Hyperthyroidism," George W. Crile, M.D., Cleveland, Ohio (by invitation).
Discussion opened by Martin B. Tinker, M.D., Ithaca.
"The Results of 300 Goitre Operations with Description of the Author's Operative Technique," George E. Beilby, M.D., Albany.
Discussion opened by L. W. Graham, M.D., Albany (by invitation).
"Experimental Thyroidectomy in Sheep," Sutherland Simpson, M.D., Ithaca.
"Certain Criteria of Management in Prostatic Carcinoma," Ernest M. Watson, M.D., Buffalo.

Thursday, May 24th
Clinics.

SECTION ON OBSTETRICS AND GYNECOLOGY.

Chairman—HARVEY B. MATTHEWS, M.D., Brooklyn.
Secretary—HUGH C. McDOWELL, M.D., Buffalo.

Tuesday, May 22nd, 2:30 P.M.

"Kidney Infections Complicating Pregnancy," Henry G. Bugbee, M.D., New York City.
"Diabetes as an Obstetrical and Gynecological Problem," F. Gorham Brigham, M.D., Boston, Mass. (by invitation).
"Sterility, Female," Edward Reynolds, M.D., and Donald Macomber, M.D., Boston, Mass. (by invitation).
"Sterility, Male," J. Sturdivant Read, M.D., Brooklyn.

Wednesday, May 23rd, 9:30 A.M.

SYMPOSIUM ON PRENATAL CARE AND MATERNITY WELFARE.

"From the Standpoint of the State," Florence L. McKay, M.D., Albany (by invitation).

"From the Standpoint of the Regional Consultant," James K. Quigley, M.D., Rochester.

"From the Maternity Center Without Hospital Connection," George W. Kosmak, M.D., New York City.

"Prenatal Care with Hospital Affiliation," John O. Polak, M.D., Brooklyn.

Wednesday, May 23rd, 2:30 P.M.

"Indications and Limitations of X-ray and Radium in Obstetrics and Gynecology," Harvey R. Gaylord, M.D., Buffalo.

"Incidence of Cancer During Pregnancy," Barton C. Hirst, M.D., Philadelphia, Pa. (by invitation).

"Gonorrhoea and Pregnancy," Emily D. Barringer, M.D., New York City.

Title to be announced. William E. Studdiford, M.D., New York City.

Thursday Morning, May 24th.

OPERATIVE CLINICS.

Bellevue Hospital, New York, Frederick C. Holden, M.D.

Long Island College Hospital, Brooklyn, John O. Polak, M.D.

Sloane Hospital for Women, New York, William E. Studdiford, M.D.

Methodist Episcopal Hospital, Brooklyn, O. Paul Humpstone, M.D.

Thursday Afternoon, May 24th.

OPERATIVE CLINICS.

Women's Hospital, New York, George Gray Ward, M.D.

Roosevelt Hospital, New York, Howard C. Taylor, M.D.

Lying-in Hospital, New York, Asa B. Davis, M.D.

Mt. Sinai Hospital, New York, Joseph Brettauer, M.D.

SECTION ON NEUROLOGY AND PSYCHIATRY.

Chairman—S. PHILIP GOODHART, M.D., New York City.

Secretary—IRVING H. PARDEE, M.D., New York City.

Tuesday, May 22nd, 2:30 P.M.

"Fulminating Syphilis," E. Livingston Hunt, M.D., and Leila C. Knox, M.D., New York City.

Title to be announced. Byron Stookey, M.D., New York City.

"Neurology in New York and the Treatment of Neurological Cases," Charles L. Dana, M.D., New York City.

"A Further Contribution to the Study of the Relation of Epidemic Encephalitis to Poliomyelitis," Marcus Neustaedter, M.D., New York City, William W. Hala, M.D., Astoria, E. T. Banzhof, M.D. (by invitation).

"Epidemic Encephalitis Treated With Sodium and Nucleonate, with Report of Cases," Joshua H. Leiner, M.D., New York City.

Wednesday, May 23rd, 9:30 A.M.

"Psychotic Residue of Encephalitis," George H. Kirby, M.D., New York City.

"The Sociological Aspect of Conduct Disorders in Children Following Encephalitis," Menas S. Gregory, M.D., New York City.

"Alienists and Criminal Trials, Reasons for Dissimilar Opinions," John F. W. Meagher, M.D., Brooklyn.

"Speech Defects in Relation to Nervous Diseases," James S. Greene, M.D., New York City.

Wednesday, May 23rd, 2:30 P.M.

"Recent Advances in Treatment of Psycho-Neuroses," Thomas W. Salmon, M.D., Larchmont.

"Important Emotional Trends in Childhood," Edith R. Spaulding, M.D., New York City.

"Mental Hygiene and the General Practitioner," Frankwood E. Williams, M.D., New York City.

"Besetting and Other Morbid Fears," Tom A. Williams, M.D., Washington, D. C. (by invitation).

**Thursday, May 24th
Clinics.**

SECTION ON EYE, EAR, NOSE AND THROAT.

Chairman—EDMOND E. BLAAUW, M.D., Buffalo.

Secretary—EUGENE E. HINMAN, M.D., Albany.

Program not yet arranged.

SECTION ON PEDIATRICS.

Chairman—ELIAS H. BARTLEY, M.D., Brooklyn.

Secretary—ARTHUR W. BENSON, M.D., Troy.

Tuesday, May 22nd, 2:30 P.M.

JOINT SESSION WITH SECTION ON PUBLIC HEALTH.

"The Periodic Examination of Well Children," Richard M. Smith, M.D., Boston, Mass. (By invitation.)

Discussion by Charles H. Smith, M.D., New York City; Henry L. K. Shaw, M.D., Albany, and Frank vander Bogert, M.D., Schenectady.

"Relation of the Pediatrician to Child Welfare Work," S. Josephine Baker, M.D., New York City.

Discussion opened by DeWitt H. Sherman, M.D., Buffalo.

"Infant Mortality in Relation to Breast Feeding," Florence L. McKay, M.D., Albany (by invitation).

Discussion opened by Frank H. Richardson, M.D., Brooklyn.

"Lay Advertising and Child Welfare," Frank vander Bogert, M.D., Schenectady.

Discussion opened by Edwin F. Hagedorn, M.D., Gloversville.

Wednesday, May 23rd, 9:30 A.M.

"Modification of Breast Milk," William H. Donnelly, M.D., Brooklyn.

Discussion opened by Frank H. Richardson, M.D., Brooklyn, and Walter F. Watton, M.D., Brooklyn.

"Solving the Problem of Preventive Dentistry," Alfred C. Fones, D.D.S., Bridgeport, Conn. (By invitation.)

Discussion opened by Clarence J. Grieves, D.D.S., Baltimore, Md. (By invitation.)

"Anorexia in Children, with Report of Case," T. Wood Clarke, M.D., Utica.

Discussion opened by DeWitt H. Sherman, M.D., Buffalo.

"Acidosis, A Faulty Diagnosis," Harry R. Lohnes, M.D. (by invitation), and DeWitt H. Sherman, M.D., Buffalo.

Discussion opened by T. Wood Clarke, M.D., Utica.

Wednesday, May 23rd, 2:30 P.M.

"Immunity of Infants Under Five Years of age Against Measles," Charles Herrman, M.D., New York City.

Discussion by Henry Koplik, M.D., William H. Park, M.D., Sidney V. Haas, M.D., Bret Ratner, M.D. and Philip M. Stimson, M.D., New York City.

"Recent Results of Active Immunization with Diphtheria Toxin and with Different Mixtures of Toxin-Antitoxin in Schools and Institutions," Abraham Zingher, M.D., New York City.

Discussion by Charles Herrman, M.D., William H. Park, M.D., William A. Hannig, Ph.D. (by invitation). New York City.

"A Preliminary Report of the Occurrence of Gonococcal Vaginitis in the New-born," Edward J. Wynkoop, M.D., Syracuse.

"The Role of Light in Rickets," Alfred F. Hess, M.D., New York City.

Discussion opened by Roland G. Freeman, M.D., New York City.

"Diaphragmatic Hernia: Report of a Case," Philip M. Stimson, M.D., New York City.

**Thursday, May 24th.
Clinics.**

Mt. Sinai Hospital, New York City.

Babies' Hospital, New York City.

Post Graduate Hospital, New York City.

**SECTION ON PUBLIC HEALTH, HYGIENE
AND SANITATION.**

Chairman—PAUL B. BROOKS, M.D., Albany.
Secretary—ARTHUR D. JAQUES, M.D., Lynbrook.

Tuesday, May 22nd, 2:30 P.M.

JOINT SESSION WITH SECTION ON PEDIATRICS.

"The Periodic Examination of Well Children,"
Richard M. Smith, M.D., Boston, Mass. (By invitation.)

Discussion by Charles H. Smith, M.D., New York
City; Henry L. K. Shaw, M.D., Albany, and Frank
vander Bogert, M.D., Schenectady.

"Relation of the Pediatrician to Child Welfare
Work." S. Josephine Baker, M.D., New York City.

Discussion opened by DeWitt H. Sherman, M.D.,
Buffalo.

"Infant Mortality in Relation to Breast Feeding,"
Florence L. McKay, M.D., Albany (by invitation).

Discussion opened by Frank H. Richardson, M.D.,
Brooklyn.

"Lay Advertising and Child Welfare," Frank vander
Bogert, M.D., Schenectady.

Discussion opened by Edwin F. Hagedorn, M.D.,
Gloversville.

Wednesday, May 23rd, 9:30 A.M.

**SESSION OF SPECIAL INTEREST TO HEALTH OFFICERS AND
SCHOOL MEDICAL INSPECTORS.**

Principle discussions limited to five minutes.

"The Nature of the School Physical Examination,"
Joseph C. Palmer, M.D., Syracuse.

"The Effect of Public Health Work on Medical
Practice," Haven Emerson, M.D., New York City.

"Subnormal Mental Conditions in Childhood," Wil-
liam B. Cornell, M.D., Albany.

"Results of Investigation of Deaths from Puerperal
Sepsis in the State," Otto R. Eichel, M.D., Albany.

"The Health Officer and Politics," Matthias Nicoll,
Jr., M.D., Albany.

"Interpretation of the Results of Wasserman Tests,"
Edward H. Marsh, M.D., Brooklyn.

"Results of Investigation of Deaths from Diphtheria
in the State," Edward S. Godfrey, Jr., M.D., Albany.

"Experiences in Schick Testing School Children,"
William A. Strohenger, M.D., Auburn.

"Use of Pertussis Vaccine as a Diagnostic Agent,"
Stanley W. Sayer, M.D., Gouverneur.

Wednesday, May 23rd, 2.30 P.M.

SESSION OF SPECIAL INTEREST TO LABORATORY WORKERS.

Program to be prepared by the New York State
Association of Public Health Laboratories.

Thursday, May 24th

Clinics.

MEETING OF THE COUNCIL.

A meeting of the Council of the Medical Society of
the State of New York was held at the Onondaga Hotel,
Syracuse, N. Y., on Saturday, December 2, 1922; Dr.
Arthur W. Booth, President; Dr. Edward Livingston
Hunt, Secretary.

The meeting was called to order at 11 A. M.; and on
roll call the following answered to their names: Drs.
Arthur W. Booth, Edward Livingston Hunt, James F.
Rooney, E. Eliot Harris, George M. Fisher, Nathan B.
Van Etten, Arthur D. Jaques, Arthur J. Bedell, E.
MacD. Stanton, John M. Quirk, Harry R. Trick, James
N. Vander Veer, and Joshua M. Van Cott.

A quorum being present, Dr. Booth announced the
meeting open for business.

Moved, seconded and carried that the reading of the
minutes of the previous meeting be dispensed with.

The following letter was read from the Tompkins
County Medical Society:

Ithaca, N. Y.
November 20, 1922.

Edward Livingston Hunt, M.D., Secretary,
Medical Society, State of New York.

MY DEAR DR. HUNT:

In reply to yours of the 18th inst., relative to the
proposed new by-laws of the Medical Society of Tomp-
kins County:

(1) Your first criticism is an objection to men who
have been members of the State Society since 1913.

If you will look up the proceedings of the Council
under date of December 5, 1913, you will find that at
that meeting they approved the following amendment
to our by-laws.

"Graduates in Medicine, Veterinary Medicine and
allied Sciences, engaged in teaching or in scientific
research in subjects allied to Medicine in Cornell Uni-
versity at Ithaca, N. Y., are eligible for active member-
ship in the Medical Society of the County of Tompkins,
the Sixth District Branch and the Medical Society of the
State of New York."

Under date of October 9, 1913, Dr. Wisner R. Town-
send, then Secretary of the State Society, wrote me
as follows:

"DEAR DR. FISH:

"The amendments to your by-laws are approved by
the Council."

The above was one of the amendments referred to,
it was then incorporated in our by-laws as Section 1A
of Chapter II.

Dr. Townsend congratulated me in formulating this
amendment and stated it would be the means of help-
ing the State Society in other counties situated as
were we and in bringing into the State and County
Societies valuable members.

You see, the Council is reversing a former action
which I do not believe it intended to do.

(2) Section 10 of Chapter III will be changed as to
read as follows:

"Candidates duly elected to active membership shall
qualify as such by signing the by-laws of the society,
District Branch and Medical Society of the State of
New York."

This, I think, fully meets the criticism on Section 10.

(3) The criticism of Sec. 5, Chapter III, seems to me
more technical than practical. The section reads as
follows:

"Associate and Honorary members shall be entitled
to voice and vote on all matters brought before the
Society *except* the election of officers and delegates and
the election of applicants for membership."

I confess I am not able to see in what way this does
not safeguard the State Society. However, some remote
contingency might possibly arise, but I can see at least
one change that should be made and therefore I will
rewrite the section to read as follows:

Sec. 5, Chap. III. Associate and Honorary members
shall be entitled to voice and the privilege of the floor,
but shall not be entitled to vote except upon purely local
matters which could in no way effect the relations of
this Society with the officers or delegates, the applica-
tions for membership, or changes in the by-laws.

This should certainly cover all points open for criti-
cism.

I hope, Doctor Hunt, that I may get a decision on the
above points at an early date. Our election of officers
and delegate takes place next month and I think you
will see that we must have time to call a special
meeting and adopt these by-laws before then.

Yours truly,

WILBER G. FISH,
Secretary, Tompkins County Medical Society.

Moved and seconded, that the following portion of Chapter III, Section 6, of the proposed by-laws of the Tompkins County Medical Society "and graduates in medicine, veterinary medicine and allied sciences engaged in teaching or in scientific research in subjects allied to medicine in Cornell University at Ithaca, N. Y.," be not approved. Carried.

Moved and seconded, that in Chapter X, Section 3, the words "District Branch" be omitted. The section will then read "Candidates duly elected to active membership shall qualify as such by signing the by-laws of the Society, and Medical Society of the State of New York." Carried.

Moved and seconded, that the entire Section 5 of Chapter III, be not approved. Carried.

The following amendment to the by-laws was presented from the Medical Society of the County of Westchester:

Add to Chapter II:

Associate Membership. Physicians in good standing residing in Westchester County who are members in good standing in any County Society of the State of New York, may, by a majority vote of the members present at a regular meeting, obtain Associate Membership in the Society. Applicants must be approved and indorsed by the Comitia Minora and the application must be sent to the Secretary of the Society in time for presentation at a regular meeting of the Society. Associate members shall be entitled to the privilege of attending and addressing the meetings of the Society, shall receive the regular notices of the meetings, but shall not be accorded the other rights or privileges of membership. Associate members shall pay annually the sum of two dollars which shall be due on the first day of January of each year.

Moved and seconded that it be not approved. Carried.

Letters were read from Dr. Charles C. Zacharie of White Plains, appealing against the action of the Medical Society of the County of Westchester excluding him from membership.

Moved and seconded that the matter be referred to the Board of Censors. Carried.

Moved and seconded that the following resolution passed by the Executive Committee and referred to the Council be approved. Carried.

Resolved, That a bill be introduced into the Legislature amending the Medical Corporation Law, Section 215, by striking out "and the aggregate of such assessment for any member in any one year shall not exceed \$5," and giving the privilege to the Medical Society of the State of New York of fixing its own dues and assessments.

Dr. Rooney, Chairman of the Special Committee appointed to send in a report considering suggested amendment to the Constitution and By-Laws on the increase of dues and give reasons therefor, reported that the Committee after due consideration advised that the Society be empowered to increase the annual dues not to exceed the sum of \$10 per annum.

Moved and seconded that the report be adopted. Carried.

Dr. Stanton stated that he had represented the Committee on Medical Economics of the State Society at a meeting of the Joint Committee for the study of rural health conditions and organization in New York State.

He also stated that he considered the work done by this committee of great importance and would advise the State Society to appoint someone to represent it at future meetings, and that this representative be given power to act for the Society.

Moved and seconded that the matter be referred to the Committee on Public Health and Medical Education for further study and report. Carried.

Moved and seconded that Dr. Van Cott, Chairman of the Committee on Public Health and Medical Educa-

tion, be granted permission to wait until a later date to present the names of his Committee, and that the Executive Committee be given power to approve them for the Council. Carried.

There being no further business the meeting adjourned at 12:30 P. M.

EDWARD LIVINGSTON HUNT,
Secretary.

County Societies

BRONX COUNTY MEDICAL SOCIETY

REGULAR MEETING, JANUARY 17, 1923.

The meeting was called to order at Daubert's Fordham Road and Concourse, at 9:10 P. M., the retiring President, Dr. Zigler, in the Chair.

Dr. Zigler introduced Dr. Leiner, who then took the Chair and outlined his plans for the year.

It was moved and carried that the Secretary be instructed to cast one ballot for the following applicants for membership:

Morris Kimberg, Mark Lourie, William F. McDermott, Joseph Schwartz, Matthew Shapiro, Samuel Weissman.

Dr. Van Etten moved that, in view of the fact that in the month of March several doctors in the Bronx will have practiced medicine for fifty years, the Chair appoint a Committee to consider the matter of presenting appropriate congratulatory resolutions to such gentlemen. Motion seconded and carried.

Dr. Amster reported that he had written to Governor Smith regarding public welfare measures affecting the medical profession, and that the Governor had replied that he had every intention of being guided by the medical profession. The President directed that this matter be referred to the Committee on Legislation.

The Secretary read a communication from Dr. E. R. Cunniffe announcing the organization of The Bronx Surgical Society.

SCIENTIFIC SESSION

1. "Diagnosis and Treatment of Nasal Sinusitis," Samuel Kulin, M.D., New York.

Discussion led by Dr. Thomas J. Harris, Irving W. Voorhees, Louis Polon, I. S. Bernstein, B. S. Kramer, Abraham Lobell and Dr. Lewis. Dr. Kulkin closed the discussion.

2. "Clinical Observations on the Morphology and Function of the Capillaries," Ernst P. Boas, M.D.

Discussion led by Drs. Eli Moschowitz, Joseph Popper, Charles S. Rogers and Nicholas Lukin. Dr. Boas closed the discussion.

BROOME COUNTY MEDICAL SOCIETY

REGULAR MEETING, BINGHAMTON, JANUARY 16, 1923.

The following resolutions were adopted:

First: That the Broome County Medical Society notify legally qualified homeopaths to become members of the Broome County Medical Society, with all the rights and privileges of such membership. Dr. F. M. Dyer was appointed to extend the invitation.

Second: To take a census of the physicians enrolled in the Broome County Clerk's office, and check up the legally qualified against the illegal practitioners in Broome County. The Committee appointed to take such census: Dr. L. H. Quackenbush, Chairman; Dr. H. I. Johnston, Dr. Blinn A. Buell.

Third: That a committee be appointed to bring up the membership to 100 per cent in the Broome County Medical Society. The Committee appointed: Dr. Arthur Smith Chittenden, Chairman; Dr. John C. S. Lappeus, Dr. P. H. Shaw, Dr. R. O. Crosier, Dr. C. J. Longstreet.

Fourth: That the Broome County Medical Society place itself on record as favoring an increase in the

rate of Membership fees for the State, and that the Secretary be so informed.

Fifth: That the meetings of the Broome County Medical Society be held monthly instead of quarterly.

Sixth: That the Binghamton Academy of Medicine amalgamate its regular meetings with the monthly meetings of the Broome County Medical Society. The Committee: Dr. S. D. Molyneaux, Chairman; Dr. Charles M. Allaben, Dr. M. S. Bloom.

TOMPKINS COUNTY MEDICAL SOCIETY

ANNUAL MEETING, ITHACA, N. Y., DECEMBER 19, 1922.

The minutes of the November meeting were read and approved as read. The report of the Comitia Minora that the dues for 1923 will be \$3 and the recommendation that the Secretary be given an honorarium of \$50 for 1923 were approved.

The Secretary submitted his annual report which was received and ordered spread upon the minutes. The report showed a present membership of ninety-three. Three members died during the year, *viz.*, Dr. William C. Gallagher, Dr. Elma C. Griggs, Dr. John S. Shearer.

The Society held ten meetings during the year at which there were presented seventeen scientific papers covering a wide scope of subjects. The year has been a prosperous one for the society, with both attendance and interest good.

The treasurer's report showed a balance of \$200 in the treasury.

The Legislative committee made a verbal report through its chairman, Dr. Luzerne Coville.

The following officers for 1923 were elected: President, Dr. M. A. Dumond; Vice-President, Dr. W. B. Holton; Secretary, Dr. Wilbur G. Fish; Treasurer, Dr. John W. Judd.

The following scientific program was presented: "Respiratory Arrhythmias," Earl V. Sweet, M.D., of Syracuse.

Discussion by Sutherland Simpson, M.D., S. R. Burlage, M. D.

"Heliotherapy," H. J. Brayton, M.D., Syracuse.

Discussion by Keith Sears, M.D., H. H. Crum, M.D., and Luzerne Coville, M.D.

REGULAR MEETING, ITHACA, JANUARY 16, 1923.

The minutes of the December meeting were read and approved as read. The report of the Comitia Minora was made by reading the minutes of its last meeting.

An appropriation of \$20 to the Secretary and \$10 to the treasurer for postage and petty cash for 1923 was passed.

President Dumond announced the committees for 1923.

A communication from the Oneida County Medical Society asking the transfer of Dr. Edward P. Bugbee to our Society was read and accepted.

A communication from the Surgeon General of the Public Health Service of the Treasury Department of the Federal Government asking in general terms as to the increase or decrease of Venereal Disease in our county during the past year was referred to Dr. M. A. Dumond for reply.

The scientific program was then taken up.

Dr. S. A. Goldberg gave an illustrated talk on "The Pathology of Deforming Arthritis." The talk accompanied by the very clear and excellent illustrations shown was very instructive and was received with much interest.

Discussion was opened by Dr. Frost, followed by Dr. Unger and several others.

Formal adjournment was taken and members and guests repaired to the dining room for light refreshments.

Books Received

Acknowledgment of all books received will be made in this column and this will be deemed by us a full equivalent to those sending them. A selection from these columns will be made for review, as dictated by their merits, or in the interest of our readers.

HISTORY OF THE GREAT WAR BASED ON OFFICIAL DOCUMENTS—MEDICAL SERVICES.

GENERAL HISTORY. Volume 1. By Major-General Sir W. G. MacPHERSON, K.C.M.G., C.B., LL.D. Octavo of 463 pages, illustrated. London, His Majesty's Stationery Office, Imperial House, Kingsway, W. C., 2, 1921. Cloth, 22 shillings.

DISEASES OF THE WAR. Volume 1. Edited by Major-General Sir W. G. MacPHERSON, K.C.M.G., C.B., LL.D. and others. Octavo of 550 pages, illustrated. London, His Majesty's Stationery Office, Imperial House, Kingsway, W.C., 2, 1922. Cloth, 22 shillings.

SURGERY OF THE WAR. Volume 1. Edited by Major-General Sir W. G. MacPHERSON, K.C.M.G., C.B., LL.D. and others. Octavo of 618 pages, illustrated. London, His Majesty's Stationery Office, Imperial House, Kingsway, W.C., 2, 1922. Cloth, 26 shillings.

SURGERY OF THE WAR. Volume 2. Edited by Major-General Sir W. G. MacPHERSON, K.C.M.G., C.B., LL.D. and others. Octavo of 604 pages, illustrated. London, His Majesty's Stationery Office, Imperial House, Kingsway, W.C., 2, 1922. Cloth, 26 shillings.

MEDICAL DIAGNOSIS FOR THE STUDENT AND PRACTITIONER. By CHARLES LYMAN GREENE, M.D., St. Paul. Attending Physician, St. Luke's and Miller Hospitals; Consulting Physician, State Hospital for Crippled and Deformed Children; Member Association of American Physicians, American Therapeutic Society, etc., etc. Fifth Edition Revised and Enlarged with 14 Colored Plates and 623 other illustrations. P. Blakiston's Son & Co., Phila., Pa. Price \$12.00.

Book Reviews

HISTORY OF THE GREAT WAR BASED ON OFFICIAL DOCUMENTS; MEDICAL SERVICES; GENERAL HISTORY. VOL. I. MEDICAL SERVICES IN THE UNITED KINGDOM; IN BRITISH GARRISONS OVERSEAS; AND DURING OPERATIONS AGAINST TSING-TAU, IN TOGOLAND, THE CAMEROONS, AND SOUTH-WEST AFRICA, by MAJOR-GENERAL SIR W. G. MACPHERSON, K.C.M.G., C.B., LL.D. Printed and published by His Majesty's Stationery Office, London, 1921. Cloth, 22 shillings.

In September, 1914, Sir William Osler received a letter from Professor Adami of McGill University pointing out that in none of its wars had Great Britain thoroughly worked up its medical history, and suggesting that from the start steps be taken to systematically collect data for a medical and surgical history of the war and to preserve materials for a museum. His letter was forwarded by Osler to the Director-General of the Army Medical Service, and in November, 1914, an officer was appointed to undertake the duty of preparing material for this purpose, with the advice of a consultative committee of ten eminent men. As time went on the work grew to large proportions, but everything bearing on the medical aspects of the war was so collected and classified as to render the construction of a consecutive comprehensive medical history a relatively simple task. The publication of such a history is now under way, four volumes having to do with a General History of the Medical Services, two with the diseases of the War and the Medical Aspects of Aviation and Gas Warfare, two with the Surgery of the War, two with the Hygiene of the War, one with the Pathology and Medical Research during the War, and one

with Medical Statistics and Epidemiology of the War.

The present volume, the first of the series, deals with the medical services in the United Kingdom and in garrisons overseas, with an account of the medical services in the operations against the German colonies in West and South-west Africa and in Tsing-Tau.

The opening chapter tells an instructive story of the development of the medical service during the period between the Boer War and the outbreak of the World War. The lessons learned in South Africa resulted in the adoption—after characteristically democratic struggles—of a far-sighted policy of organization which provided the empire with an army medical service elastic enough to expand promptly and efficiently when the great call came, and carry on through the years of tremendous responsibility without a break. The story of mobilization is told in narrative form and should be a valuable lesson to all medical officers, not to mention the powers that control them. Although changes in plans had to be put into effect not infrequently, it is quite evident that the Medical Service was far from unprepared. It is evident too that the experiences of the British Medical Service must have been of great value to the authorities in Washington when our turn came.

Chapters on Administration, Hospital Accommodation, and Disposal of the Sick and Wounded contain much information of historical and military value.

The organizations of voluntary aid, which played such an important part in the care of the sick and wounded, are given full credit, and there are instructive figures on supplies, and a chapter on the problem of medical civilian care during the war.

The stories of the expeditionary forces in Africa and China are necessarily less statistical but no less interesting than the description of affairs at home. They are quite brief, but are of definite medical interest, as well as being of value from a historical and military standpoint.

Such a work as this volume might well have been a mere compilation of statistics. As a matter of fact it is a very interesting book, written largely in narrative form. It is a bit of autobiography of the British Medical Service, written in a modest and dignified manner, and it is enduring history. Certainly the medical profession may congratulate itself that it occurred to Professor Adami to write to Sir William Osler as he did and when he did.

T. H.

HISTORY OF THE GREAT WAR, BASED ON OFFICIAL DOCUMENTS; MEDICAL SERVICES; SURGERY OF THE WAR. Vol. I. Edited by MAJOR-GENERAL SIR W. G. MACPHERSON, K.C.M.G., C.B., LL.D., MAJOR-GENERAL SIR A. A. BOWLBY, K.C.B., K.C.M.G., K.C.V.O., MAJOR-GENERAL SIR CUTHBERT WALLACE, K.C.M.G., C.B., and COLONEL SIR CRISP ENGLISH, K.C.M.G. Printed and published by His Majesty's Stationery Office, London, 1922. Cloth, 26 shillings.

To Sir Anthony Bowlby, Sir Cuthbert Wallace and Sir Crisp English is due the greatest credit for editing these volumes upon Surgery of the War. To these consultants and other surgeons of the Royal Army Medical Corps was afforded an unparalleled opportunity for surgical work. The surgery of war was revolutionized and held a position which it had never occupied before in the history of the world. The present volume is compiled by those surgical specialists who held positions in the Royal Army Medical Corps, and in part is based upon publications which have appeared previously in British Medical and Surgical Journals. The object of this particular volume is to present the methods which have been found trustworthy at the termination of the war, rather than to describe step by step the development and progress of war surgery which occurred during the active fighting.

The present volume under review contains eighteen chapters and five appendices. Chapters I and II are entitled "Projectiles" and "Results of Projectiles Action," and are contributed by E. M. Pilcher. Chapters III and IV are entitled "Wound Shock in Front Line Areas" and in "Casualty Clearing Stations," and are contributed by E. M. Cowell and J. Fraser. Chapters V, VI, VII, VIII, IX, and X are entitled "Blood Transfusion," "Gas-gangrene," "Tetanus," "Trench Foot," "Anesthesia," "Surgical Work in Field Ambulances." These are contributed respectively by K. M. Walker and E. Gordan-Taylor, C. S. Wallace, F. W. Andrewes, H. W. Grattan, H. P. Crampton and C. Max Page. Chapters XI, XII, XIII, XIV, are entitled, respectively, as follows: "Development of Casualty Clearing Stations and Front Line Surgery in France," "Wound Treatment in General Hospitals in France," "Surgical Work in Palestine, Mesopotamia and Macedonia," "Wound Treatment in Hospitals in the United Kingdom." These are written in the order named by A. A. Bowlby, G. H. Makins, T. P. Legg, C. L. Bond. The subsequent chapters are devoted to wounds of the chest, pericardium and heart, and of the abdominal viscera, and are written by G. E. Gask and T. R. Elliott, G. H. Makins, C. S. Wallace and W. W. Wagstaffe.

The text is interspersed with excellent diagrams, charts, and well chosen illustrations. Many of the latter are colored plates. The appendices contain much useful information in the form of tables well epitomized.

This volume is the first authentic contribution on a large scale from the standpoint of the British which has yet appeared. It will prove a welcome and very useful reference book upon this subject.

ROYALE H. FOWLER.

THE SURGICAL CLINICS OF NORTH AMERICA. October, 1922, Volume 2, No. 5, Southern Number. Published Bi-monthly. W. B. Saunders Co., Phila. and London.

The present number—the Southern number—is rather unique in the fact that its contributors are scattered over a large area of that section of the country, and the clinics are held in a number of different cities.

Dr. Matas of New Orleans, our great authority on the surgery of aneurism, discusses this topic very thoroughly, reports a number of cases, and indicates their proper treatment by excellent illustrations. Dr. Parham of the same city, deals with cases of abscess of the lung, Charcot's joints, and fractured patella.

Dr. Horsley of Richmond, Va., dwells particularly on duodenal ulcers. Those who are not familiar with his ideas as expressed in his numerous publications, will do well by reading this article. He advocates excision of the ulcer whenever feasible, and a pyloroplasty as the only rational treatment, based as this is on sound physiological principles.

Dr. MacGuire of the same city, takes up the subject of congenital hypertrophic pyloric stenosis, urging particularly the use of local anaesthesia in operating for this condition.

Dr. Thompson of Galveston, Texas, relates a few interesting experiences with cases of congenital deformities of the lips and palate.

Dr. Royster of Raleigh, N. C., reports among other cases, one of tuberculous peritonitis, in which he obtained a perfect cure by laparotomy. He operated on the patient again three years later for another condition, and there wasn't the slightest evidence of tuberculosis in the abdomen.

Dr. Haggard of Nashville, Tenn., gives an excellent dissertation on exophthalmic goitre, diverticulitis of sigmoid, and sarcoma of the spleen.

The other contributors are: Dr. Abel of Louisville, Ky.; Dr. Bradburn, and Dr. Martin of New Orleans; Dr. Mason of Birmingham; and Dr. Scott of Temple, Texas.

HERMAN SHANN.

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RECENT PROGRESS IN THE COMMUNICABLE DISEASES OF CHILDHOOD.

By CHARLES HERRMAN, M.D.,
NEW YORK CITY.

I. MEASLES

ALTHOUGH Tunncliffe has described a diplococcus which is regularly present in measles, it seems doubtful whether this is the cause of the disease, for the infectious agent has been shown to be a filterable virus. The diplococcus may bear the same relation to measles that certain strains of streptococci do to scarlet fever, and possibly may be associated with the complications.

It is now pretty generally agreed that measles is most communicable in the catarrhal stage, and that the communicability lasts about five days, that is, until the completion of the eruption. Mild unrecognized cases and carriers may occasionally spread the disease.

The Koplik spots are the most constant and most important of the early buccal manifestations. They are present in 90 per cent of all cases, and most frequently absent in infants under eight months of age. The tonsillar spots are often seen before the Koplik spots, but are only regularly present in children with some hypertrophy of the tonsils. Next to the initial fever, they may be the earliest manifestation, and are therefore valuable in the early isolation of suspects. The leucocyte count is of some value in the early diagnosis in institutions, when secondary cases are expected.

In the diagnosis, the presence of Koplik spots is the most important single symptom; however, all parts of the mouth should be examined; tonsils, palate, gums, all present characteristic changes. The Koplik spots are not present in other diseases; those of Fordyce's disease are easily distinguished. Second attacks of measles are extremely rare. Most of those so considered are due to mistakes in diagnosis. A diagnosis should not be made from the appearance of the eruption alone as similar skin manifestations may be due to rubella, roseola infantum, drugs, intestinal disturbance, etc. Direct exposure in a child over five months of age, who has

never had the disease, is almost always followed by the eruption in fourteen days.

The chief difficulty in the control of the spread, lies in the fact that the disease is most communicable at a time when its true nature is not suspected. Infection takes place most readily in rooms (school), where a number of children are in close contact. The infected school children then bring it home to the younger ones. A separation into classes with children who have had measles and those who have not had it, is hardly practicable with our system. A certificate should be given after an attack, so that the child may continue attendance at school at some future time when another case occurs in the family. As the majority of the deaths occur in children under two years, and from broncho-pneumonia, an effort should be made to postpone infection until the child is older.

Prophylaxis.—1. With convalescent serum. One week after defervescence from measles, from 60 to 80 c.c. of blood is withdrawn from a healthy child over three years of age. The serum is separated, a small portion is subjected to the Wassermann test, and a little tricresol, as a preservative, is added to the remainder. Serum of several patients is mixed and the material is kept in sealed vessels. For prophylactic inoculation from 3 to 6 c.c. of the serum is injected intramuscularly, not later than four days after infection. The chief objection to this method is that it confers a *passive* immunity which lasts only eight weeks, and that it is not absolute even for that length of time. Its application is limited to institutions for the care of young children.

2. My own method of conferring active immunity depends on the following: Seventy-five per cent of all deaths from measles occur in infants under two years of age. Any method of immunization which aims to control this disease must be employed in early infancy on all or nearly all children. Infants whose mothers have had measles are relatively immune during the first five months of life. The infectious material is regularly present in an active form in the nasal discharge from twenty-four to forty-eight hours before the eruption appears. It is not necessary to isolate or to identify the infectious material, or to obtain its growth in pure culture in order to immunize against the disease.

In practice the infectious material is conveyed usually from the nasal mucous membrane of the child infected. The immunizing inoculation follows the same path; the nasal discharge of the patient free from other disease is taken from twenty-four to forty-eight hours before the appearance of the eruption and is mixed with a small quantity of normal saline solution; the bacteria and other extraneous material is separated by centrifugalization and a few drops of the solution are applied to the nasal mucous membrane of the infant to be immunized. *Only healthy infants between four and five months are inoculated.* The method endeavors to convert a temporary relative immunity into an active immunity which persists for at least two years, that is during the most dangerous period. The best results are obtained when a reaction follows the inoculation, a slight rise of temperature on the eighth to the sixteenth day, occasionally a few spots on the face or trunk. It is therefore important to inoculate as near as possible to the end of the fifth month. In order to render the immunity more certain and lasting, I believe it would be advisable to reinoculate in the sixth and seventh month. In 165 inoculations there has not been a single unfavorable effect. Forty-five of those inoculated have been directly exposed to infection without contracting the disease. None of those showing a definite reaction following the inoculation have contracted the disease; and thirty-six who were reinoculated after an interval of at least six months, did not develop the disease.

CLINICAL STUDIES IN FUNCTIONAL DISTURBANCES.*

II. THE RECOGNITION AND TREATMENT OF HYPOTHYROIDISM

By JOHN A. P. MILLET, M.D.,
and BYRON D. BOWEN, M.D.,
BUFFALO, N. Y.

IN a previous communication¹ a study was reported of the results of functional tests in the diagnosis of Thyroid Disorders. In this report a group of cases was presented under the designation of hypothyroidism. Many of the cases in this group did not show clinical evidence of myxedema, but only one or more suggestive signs and symptoms of hypothyroidism, combined with a low Basal Metabolic Rate and improvement of symptoms under the administration of Thyroid Extract, together with a raising of the Metabolic Rate to normal. A further study of some patients in this group, as well as more extended observations on parallel cases has made it clear to us that we must be more guarded in our interpretation of signs and symptoms sug-

gestive of hypothyroidism, even when there seems to be fair laboratory evidence in favor of the diagnosis. The present paper is intended as an effort to establish the criteria by which we may reasonably arrive at such a diagnosis, and to discuss the proper treatment of these cases when the diagnosis is made. It is our hope also that it will provoke discussion of those doubtful cases in which there are some stigmata of mild hypothyroidism, together with a lowered Basal Metabolic Rate and apparent improvement under thyroid therapy.

The material used for this presentation consists of patients who have been under observation in the Metabolism Departments of the Buffalo General and Buffalo City Hospitals during the past two and a half years. It has been a surprise to find how relatively little has been written on the subject of hypothyroidism that has any real value. The newness of the subject has been recently brought home to us by the report of Murray,² who announces the death from heart failure at the age of seventy-four of the first patient successfully treated by thyroid substance. He tells us that this patient consumed in all the equivalent of the thyroid substance obtainable from 870 sheep. In 1914 Hertoghe³ published a report of certain atypical cases of Myxedema (*Myxédème fruste*), showing an incomplete picture of the well-known syndrome. Since his classical article there have been few noteworthy contributions on the subject, those of Anders,⁴ Bertine,⁵ Janney,⁶ Starr,⁷ Dock,⁸ and Salzman,⁹ being among the foremost. The most fundamental studies have come from institutions where a special study has been made of the significance of determinations of the Basal Metabolic Rate. The pioneers in this field have been DuBois, Benedict, Means, Aub, Boothby, and Plummer.

The study of our cases has been closely controlled by periodical determinations of the Basal Metabolic Rate. We have found this an easier and in every way more practical method of following our patients than the study of the Nitrogen Balance as suggested by Janney, though this test evidently is significant. We used for our determinations the Benedict portable Respiration Apparatus. We believe that with proper care as to the mechanical accidents that may occur, such as leaks in the tubing, injured fan-blades, displaced balance-wheel, or useless soda lime, the apparatus is almost, if not quite as accurate as the Tissot type of machine. While this is not the place for a lengthy discussion of technique it is perhaps timely to issue a warning in regard to the soda lime question. If attention is not focussed constantly on the proper absorption of carbon dioxide there will be endless faulty determinations, with consequent misinterpretation of results. No other single factor is as important as this.

* Read at the Annual Meeting of the Medical Society of the State of New York, at Albany, April 20, 1922.

In a recent article Boothby¹⁰ states that cases showing lowered Basal Metabolic Rates fall into one of three groups: myxedema, hypopituitarism, or secondary hypothyroidism. It is our belief that certain cases with lowered Basal Metabolic Rates cannot, in the present stage of our knowledge, be properly classified as secondary hypothyroidism, even when they show improvement under thyroid therapy. We therefore propose, as a rational grouping of our cases, first, true myxedema; secondly, clinical hypothyroidism; and, thirdly, cases showing decreased Basal Metabolic Rates, with improvement under thyroid therapy, associated with a rise in the Metabolic Rate.

In the first group, true myxedema, there are five cases which show points of clinical interest:

CASE I.—S. G. Female. Age 56. Typical myxedema of six years' duration. Son has exophthalmic goitre; shows loquacity, is hyper-

sentimental and given to unnecessary weeping. Slow, thick speech and coarse features. Skin dry and scaly; hair scanty, especially over temporal regions. Under desiccated thyroid gland (0.195 gms. daily) her Basal Metabolic Rate rose from minus twenty per cent to normal in two weeks' time, but signs of thyrotoxicosis made it necessary to decrease the dose to 0.065 gms. At the end of four months she returned for observation. At this time the myxedema had disappeared, her hair had grown out in a thick crop of normal texture, her skin was softer, and she had a brighter outlook on life. Mentality was markedly improved. She had, however, increased markedly in weight (21 kg.), and looked far from normal. Although we tried to impress on her the necessity of keeping under observation she did not return again. Her Basal Metabolic Rate had fallen again to sixteen per cent, and we were very anxious to observe the effect of accurate regulation of the dose.

PROTOCOL—CASE I.

Date	Weight (Kg.)	B.M.R.	Treatment (Daily)	Remarks
11-24-19	—	—	0.195 gms. des. thyroid	
11-26-19	63.7	—20%	0.195 gms. des. thyroid	
12-10-19	63.4	—4%	0.0325 gms. des. thyroid	Tachycardia. Nervous.
12-15-19	63.6	—13%	0.065 gms. des. thyroid	Pulse 90 when up and about. Discharged.
4-20-20	84.5	—16%	0.170 gms. des. thyroid	Greatly improved. Had taken no thyroid for past three weeks. Eloped.

CASE II.—J. R. Male. Age 52. Typical myxedema. Duration five years. Fog-horn voice, dry skin, dry hair, slow mentality, puffy eyes, oedema of legs. Under treatment with desiccated thyroid (0.39 gms. daily) many signs disappeared, including oedema and mental changes. Soon after his Basal Metabolic Rate had risen to normal (from —35.7%) he developed an intractable diarrhoea, which yielded

when the thyroid was withdrawn. This phenomenon repeated itself three times, although much smaller doses were tried as time went on, until finally he had intermittent diarrhoea even when no thyroid was being administered—for a period of three weeks.

These two cases may be considered together, as each shows a partial failure in treatment, from different causes. In case I, the absence of four

PROTOCOL—CASE II.

Date	Weight (Kg.)	B.M.R.	Treatment (Daily)	Remarks
1-23-22	62.5	—35.7%		
1-25-22	—	—	0.39 gms. des. thyroid	
2- 3-22	59.5	—3.1%	0.39 gms. des. thyroid	
2- 9-22	—	—	Omitted	Diarrhoea.
2-16-22	—	—	—	Diarrhoea stopped.
2-17-22	55.1	—18.4%	0.195 gms. des. thyroid	
2-21-22	—	—	0.130 gms. des. thyroid	Abdominal cramps.
2-22-22	—	—	0.065 gms. des. thyroid	Diarrhoea.
2-25-22	—	—	0.065 gms. des. thyroid	Abdominal cramps.
2-26-22	—	—	Omitted	Diarrhoea.
2-28-22	—	—	Omitted	Comfortable.
3- 6-22	56.6	—10.6%	0.065 gms. des. thyroid	
3- 7-22	—	—	0.065 gms. des. thyroid	Diarrhoea.
3- 8-22	—	—	Omitted	
3- 9 and 3-17	—	—	Omitted	Better.
3-17-22	—	—	0.0975 gms. des. thyroid	
3-18-22	—	—	0.0975 gms. des. thyroid	Abdominal cramps.
3-19 and 3-21	—	—	0.0975 gms. des. thyroid	Diarrhoea.
3-24-22	57.0	—25.5%	0.0975 gms. des. thyroid	
2-25 and 3-29	—	—	0.0975 gms. des. thyroid	Diarrhoea.
3-30-22	—	—	Omitted	
4- 8-22	56.2	—27.4%	Omitted	Has had occasional diarrhoea.
4-11-22	—	—	0.045 gms. des. thyroid	Diarrhoea, 4-14-22.

months from the hospital was too long a period for a myxedematous patient to be left to her own devices. When she returned, although her improvement was marked, she had become distinctly obese—an occurrence which might have been obviated if the dosage had been better controlled. However, Means¹¹ reports a similar instance of obesity developing under treatment, in spite of improvement in other respects, which leads us to feel that we must not expect too perfect results from thyroid feeding in advanced myxedema. The second case (J. R.) illustrates the danger of beginning with too large a dose of desiccated thyroid. This dosage was not under our control. It is probable that if his tolerance had been gradually worked up he could have taken the larger dose with impunity and been spared the discomfort of a recurring diarrhoea. The dosage now being administered (0.045 gms.) is not sufficient to keep his Basal Metabolic Rate up to normal. One of us (B.) has observed this diarrhoea in a second myxedema patient under thyroid treatment.

CASE III.—M. D. Female. Age 28. Mother of five children in eight years,—an important etiological factor. Two days after birth of last child she showed strange behavior; insisted on getting out of bed to go home, misconstrued actions of the attendants and the intentions of everybody towards her. Became ugly, and refused food and medication. Transferred to the Psychopathic Ward for observation, where the Attending Psychiatrist, Dr. H. G. Matzinger, gave the following report: "No delusions—fair insight—still slow and dull, suggesting mental defect. LOOKS MYXEDEMATOUS." Three days later, after transfer to the medical service, she was seen by one of us (M.) and found to present all the classical symptoms of myxedema. The skin showed a yellowish pallor, the hair was coarse and dry, there was marked puffiness round the eyes. The skin over hands, forearms and knees was dry and scaly. The mentality was slow, the expression stupid. There was oedema of the lower legs. The Basal Metabolic Rate was found to be -17.1% . On desiccated thyroid (0.130 gms. daily) she showed a definite clinical improvement at once, with loss of oedema and sharpened mentality. On the sixth day after treatment was instituted she left the hospital and could not be persuaded to come back. Three months later (April 15, 1922), she was visited at home and found to have relapsed into a typical myxedematous state. Her only complaint was sensitiveness to cold.

Aside from the etiological factor of numerous pregnancies at short intervals the chief interest in this case lies in the fact that while she showed undoubted Myxedema, her Basal Metabolic Rate

was only -17.1% . Plummer¹² states that the characteristic oedema is never seen until the Basal Metabolic Rate falls below fifteen to seventeen per cent below normal. This occurrence of only moderately decreased metabolism in true myxedema forms an interesting source of reflection, when compared with cases showing far lower Basal Metabolic Rates but no definite clinical evidence of hypothyroidism.

CASE IV.—J. H. Female. Age 45. Entered as a patient in the tuberculosis division. Complaint: cough, sweats, nervousness, tremor, loss of weight. Sputum negative on thirty examinations. Suggestive signs at apices. Examined by one of us on April 26th, 1921 (M). At this time she showed two adenomata in the thyroid isthmus, with tremor, nervousness, hyperhidrosis, and positive von Graefe sign. On November 14th was seen a second time and found to show still a walnut-sized adenoma and tremor, although in the meantime, in accordance with a suggestion made on the first examination, she had received three X-ray treatments. These were given by the Holmes technique.¹³ Subsequently three more treatments were given, the last when the Basal Metabolic Rate had fallen to plus 6%—(the highest reading before treatment was plus 63.4%). At this time she was feeling much better. There was no hyperhidrosis, much less nervousness, and a gain in weight of 8.0 kilos. In spite of discontinuance of the X-ray treatment, however, the Basal Metabolic Rate continued to fall, and a new symptom complex appeared. Early in March (six weeks later) she complained of the tongue feeling so big that it was hard for her to enunciate properly. The bowels became very constipated. There were neuralgic pains across the shoulders and down the arms. The skin was dry and scaly, the tremor had gone, and the adenomata were barely palpable as apparently fibrous remnants. The voice was deeper and the hair dry, coarse, and brittle. The Basal Metabolic Rate at this time proved to be minus 20.1%. On March 26th she was put on desiccated thyroid (0.195 gms. daily) with improvement in general condition, hair, skin, and bowel action. On April 15th she said that she felt a little nervous again at times. On April 19th her Basal Metabolic Rate had risen to plus 12.3%.

The lesson from this case is obvious. The danger of over-radiation in treating adenomata of the thyroid with associated mild thyrotoxicosis is considerable. Large areas of healthy tissue are exposed to the rays as well as the small hyper-active nodules. Means reports a similar case which was apparently brought back to normal permanently by two courses of thyroid treatment, given by mouth.

PROTOCOL—CASE IV.

Date	Weight (Kg.)	B.M.R.	Treatment (Daily)	Remarks
5-12-21	47.7	+57.2%		Symptoms of thyrotoxicosis.
5-16-21	47.2	+63.4%		
6-18-21	—	—	X-ray over thyroid and thymus—four portals	
7- 9-21	44.3	+35.1%		
7-15-21	—	—	Second X-ray treatment	
9- 2-21	—	—	Third X-ray treatment	
11- 4-21	54.5	+33.3%		Still has adenoma and tremor.
11-25-21	—	—	Fourth X-ray treatment	
12-15-21	54.5	+18.5%		Less nervous. Neck smaller.
12-16-21	—	—	Fifth X-ray treatment	
12-30-21	—	—	Sixth X-ray treatment	
1- 5-21	55.9	+ 6.2%		
1-21-22	—	—	Seventh X-ray treatment	
1-27-22	56.6	— 3.3%		
3-13-22	58.4	—20.1%		Adenoma gone. Myxedematous symptoms developing.
3-26-22	—	—	0.195 gm. des. thyroid	
4-19-22	54.3	+12.3%		

CASE V.—Female. Age 43. Entered hospital with marked anaemia, which proved to be of pernicious type. Had had several similar attacks during the past three years. There were several very bad teeth, and a definitely myxedematous appearance. The teeth were removed, the extraction being followed by severe hemorrhage. The Basal Metabolic Rate was minus 37.5%. She was given 8.0 mgm. thyroxin intravenously, but failed to rally, and died two days later. Autopsy showed atrophy of ovaries, adrenals, and thyroid, which was merely a remnant. The blood-forming organs showed the typical changes of pernicious anaemia.

This case is mentioned because of its interesting association with an entirely independent condition, and because of the unusual autopsy findings.

Second Group.—Clinical hypothyroidism.

Before making any systematic analysis of our cases it was our impression that we had a large number of unquestionable hypothyroid patients upon the roster. A closer study, however, soon revealed the fact that this impression had arisen because of the high percentage showing definitely decreased Basal Metabolic Rates. Bertine,⁵ in an analysis of 134 cases of thyroid disease, gives the following symptoms as characteristic of atypical myxedema (*myxédème fruste*) in the order of their relative importance: asthenia (90%), headache (85%), choking sensations (78%), sluggishness (71%), fatigability, menstrual disturbances, tremor, and palpitation. If we had been willing to accept these as definite clinical criteria of hypothyroidism our second group would have been considerably larger. We have limited it, however, to those cases showing striking clinical evidence of hypothyroidism, together with an even more striking and constant response to thyroid therapy. From an analysis of our cases it will be seen that the outstanding features in

those selected for discussion are delayed or impaired mental and physical development, changes in nutrition (cachexia or obesity), thyroid enlargement, and changes in hair and skin. Five of the six cases presented are children or adolescent patients; the sixth approaches the type described by Hertoghe and others, and may be regarded as a partial myxedema.

CASE VI.—B. McK. Male. Age 12. Congenital club-foot. Stunted growth. Undernutrition. Cryptorchidism. Mentality normal, but physically somewhat inert. Delayed, irregular dentition. Dry, coarse hair. Hands broad and short. Treated with both forms of oral thyroid preparations (desiccated whole gland and thyroxin). Dried gland gradually worked up to 0.30 gms. daily, which sufficed to hold the Basal Metabolic Rate at —10%. The first determination had shown it to be —28%. Thyroxin was then substituted for the desiccated thyroid, and the optimum dose found to be 0.6 mgm. daily. This amount held the Basal Metabolic Rate constantly between —5 and —10%, and gave increased physical endurance and improved scholarship. There was a gain of 2.5 kilos in the first year's treatment, and a similar gain during the second year. The height increased 8.0 cm. over the same lapse of time. In February of this year the thyroxin was omitted as an experiment, with immediate drop in the Basal Metabolic Rate to —27% and a renewal of the old irritability, lack of ambition, and myopia.

This case is particularly interesting because it shows that in some cases thyroxin and desiccated thyroid are interchangeable as therapeutic agents, and because of the striking effect on symptoms and Basal Metabolism of the withdrawal of thyroxin. The clinical improvement has been especially gratifying because of his previous failure to respond satisfactorily to thyroid therapy when given in a less carefully supervised and consistent way.

PROTOCOL—CASE VI.

Date	Weight (Kg.)	B.M.R.	Treatment (Daily)	Remarks
4-8-20	32.0	-28.0%	0.065 gms. des. thyroid	
5-25-20	32.2	-16.0%	0.195 gms. des. thyroid	
6-17-20	31.5	-7.0%	0.130 gms. des. thyroid	
7-16-20	31.5	-10.0%	0.130 gms. des. thyroid	
9-17-20	32.2	-9.0%	Thyroxin, 0.2 mgm.	
10-23-20	32.5	-20.0%	Thyroxin, 0.3 mgm.	
12-28-20	34.2	-16.0%	Thyroxin, 0.3 mgm.	0.3 gms. ant. pituitary added.
2-15-21	34.2	-20.0%	Thyroxin, 0.4 mgm.	
3-8-21	—	—	Thyroxin, 0.5 mgm.	Hypodermic anuitrin added.
4-2-21	34.5	-12.0%	Thyroxin, 0.6 mgm.	
5-20-21	35.0	-19.0%	Thyroxin, 0.6 mgm.	Intercurrent tonsillitis. No thyroxin for some time. Feeling fine.
6-11-21	34.8	-9.0%	Thyroxin, 0.6 mgm.	
9-19-21	35.1	-6.0%	Thyroxin, 0.6 mgm.	
1-7-22	36.1	-5.5%	Thyroxin, 0.6 mgm.	
2-15-22	—	—	Omitted	Height 146 cm. (gain of 8 cm).
3-18-22	37.0	-27.0%	Thyroxin, 0.6 mgm.	Reappearance of symptoms.

CASE VII.—Male. Age 12. Sub-normal mentality. Apathetic and without interest in his surroundings. Underdeveloped. Hair very dry. Did not even have the sense to relieve his bladder when full, but would allow it to become over-distended. Much improved by thyroxin (0.2 mg. daily).

and thin. Large colloid goitre. Low-grade mentality. Apathetic and without interest in his surroundings. Extremities feel cold and clammy. Blood-vessels seem spastic. Remarkable improvement under desiccated thyroid and later thyroxin. Gain of 12.9 kilos and 5 cm. in height in ten months' time. Drop in Basal Metabolic Rate when thyroxin was withdrawn. Mentality much improved by treatment.

CASE VIII.—Male. Age 15. Tall, overgrown,

PROTOCOL—CASE VII.

Date	Weight (Kg.)	B.M.R.	Treatment (Daily)	Remarks
12-24-20	30.0	-6.2%		Mother has toxic adenoma. Unsatisfactory determination. Height, 133 cm.
1-5-21	31.0	-8.0%	Thyroxin, 0.2 mgm.	
1-13-21	30.7	+2.9%	Thyroxin, 0.2 mgm.	
2-2-21	33.0	+14.8%	Thyroxin, 0.2 mgm.	More active. Hair less dry.
3-15-21	33.5	+10.8%	Thyroxin, 0.2 mgm.	Height, 134 cm. More obedient and responsive. Likes school.

PROTOCOL—CASE VIII.

Date	Weight (Kg.)	B.M.R.	Treatment (Daily)	Remarks
2-18-20	43.7	-18.5%	0.130 gms. des. thyroid	Height, 169 cm.
3-4-20	47.2	+4.0%	0.065 gms. des. thyroid	Feels better. Less listless.
3-17-20	47.6	-1.0%	0.0325 gms. des. thyroid	
4-14-20	50.0	-21.7%	0.065 gms. des. thyroid	Improvement continues.
5-14-20	50.9	-8.0%	0.065 gms. des. thyroid	Appears brighter.
9-30-20	52.7	-10.0%	Thyroxin, 0.2 mgm.	Has taken no thyroid for past two months.
11-6-20	—	—	Omitted	
11-20-20	55.5	-23.0%	Thyroxin, 0.2 mgm.	
12-31-20	56.6	+1.0%	Thyroxin, 0.2 mgm.	Remarkable improvement. Height, 174 cm. Goitre as before.

CASE IX.—A. K. Female. Age 12. Stout: short stature. Mentality sluggish. Poor scholarship. Seclusive. Has insomnia and is very nervous. Did not talk until the age of 5 years. Has the physique of an 8-year-old. Nose

flattened. Hair very dry. Improved equally with desiccated thyroid and thyroxin. Gain of 9 cm. and 3.3 kg. in seventeen months. Would not co-operate for Basal Metabolism test.

PROTOCOL—CASE IX.

Date	Weight (Kg.)	Height	Treatment (Daily)	Remarks
4-15-20	—	—	0.195 gms. des. thyroid	
6-11-20	26.0	120 cm.	0.270 gms. des. thyroid	Sleeps better. Less irritable.
8-12-20	—	—	0.190 gms. des. thyroid	
11-1-20	—	—	Thyroxin, 0.3 mgm.	
2-1-20	28.5	124 cm.	Thyroxin, 0.3 mgm.	Improvement continues.
3-10-21	—	—	Thyroxin, 0.4 mgm.	Likes going to school.
9-10-21	29.3	129 cm.	Thyroxin, 0.4 mgm.	Eats, sleeps and plays normally. In third grade.

CASE X.—J. C. Female. Age 9. Weighs 101 lbs. in clothes. Stupendously fat. Waddles across the floor, and is scarcely able to do even that. Mentality fair. Was a seven-month baby, and very thin and small at first. Increasingly obese for past four years. Dyspnoea on exertion. Skin thick and dry. Facies cretinoid, with flattened nose and mouth held open. Breasts large and unduly developed. Abdomen obese and pendulous. Stands with legs apart. Skin thickened and dry. Basal Metabolic Rate at first —19.7%: brought up to normal by desiccated thyroid. Toxic symptoms on 0.195 gms. daily. Can not quite tolerate 0.130 gms. Great improvement in physical status, with loss of 16 lbs. and gain of 3 cm. in height in six months.

There is probably a pituitary element in this case, but we are anxious to see just how far we can carry the improvement with thyroid therapy. She looks almost like a normal fat little girl already.

CASE XI.—Female. Age 24. Complains of stomach trouble. This complaint was later shown to be due to definite dilatation of the duodenum, and to have no bearing on the thyroid condition. Six-hour residue in stomach. Has had three abdominal sections in three years (appendectomy, oophorectomy, and cholecystotomy with separation of adhesions). Very poorly nourished.

Speech is slow and drawling—possibly a rustic mannerism—, attitude apathetic. Eyes appear a little prominent. Striking arterio-spasm. Marked hypertrichosis of arms and legs. Remarkable physical change under desiccated thyroid. Tolerated as high as 0.975 gms. daily, with rise of Basal Metabolic Rate from —43% to normal in eighteen days. On return to hospital after forty-two-month absence a striking change was noted. There had been a marked gain in weight and general bearing, and the mental reaction was more alert. The arteries showed a remarkable change in condition, the spasm having entirely disappeared, and the walls being as soft as those of any normal individual of her age. Subsequently an attempt to raise a flagging metabolism caused temporary signs of thyrotoxicosis to appear. When thyroxin by the intravenous route was substituted for the desiccated gland, however, the metabolism was promptly brought to normal again without reaction.

This case shows prettily the quantitative action of thyroxin on the Basal Metabolic Rate when given by the intravenous route, and the reliability of this method as compared with the oral administration of desiccated gland. The most unusual feature, however, was the striking change in the condition of the arteries after the first course of thyroid therapy.

PROTOCOL—CASE X.

Date	Weight (Kg.)	B.M.R.	Treatment (Daily)	Remarks
10- 4-21	44.2	—19.7%	0.065 gms. des. thyroid	
10-25-21	—	—	0.195 gms. des. thyroid	No change.
11- 8-21	—	—	0.065 gms. des. thyroid	Tired easily. Restless.
11-11-21	42.0	+17.9%	0.065 gms. des. thyroid	Feels better.
12-13-21	—	—	0.130 gms. des. thyroid	Feels fine.
1-24-22	—	—	0.130 gms. des. thyroid	Pain in stomach when she runs. Has had bad cough.
1-30-22	37.0	— 2.7%	0.130 gms. des. thyroid	Pulse 120. Feels fine.
3- 4-22	36.7	— 0.6%	0.130 gms. des. thyroid	Has two permanent teeth and new one coming. Third grade.
4-10-22	34.5	+12.2%	0.130 gms. des. thyroid	Was nervous and itchy for a time after getting last box of pills. Better now.

PROTOCOL—CASE XI.

Date	Weight (Kg.)	B.M.R.	Treatment (Daily)	Remarks
4- 9-20	38.0	—43.0%	0.585 gms. des. thyroid	Stomach trouble and vomiting.
4-28-20	—	—	0.975 gms. des. thyroid	
5- 7-20	43.8	+ 4.0%	0.65 gms. des. thyroid	Vomiting stopped.
7- 8-20	54.5	— 2.0%	Dosage uncertain	
11- 9-20	44.8	+ 8.0%	Dosage uncertain	Vomiting again. Loss of weight.
11-23-20	46.7	—20.0%	0.39 gms. des. thyroid	
12- 7-20	49.2	+39.0%	Omitted	Signs of thyrotoxicosis.
1- 1-21	—	—	0.16 gms. des. thyroid	Has had five vomiting spells.
6- 9-21	40.0	—14.0%	Omitted	No thyroid since 6-2-21.
6-17-21	44.5	—13.0%	Omitted	Vomiting.
9-23-21	53.5	—25.6%	Thyroxin, 8.0 mg. intrav.	Vomiting.
10- 7-21	53.9	+11.7%	No treatment	Still vomiting.
19-14-21	55.3	+ 5.0%	No treatment	Still vomiting. Gastro-enterostomy refused.

The third group of patients comprises a motley collection of ill-defined symptom-complexes, suggesting in some one or more respects a probable thyroid disturbance, without showing anything that could be properly regarded as pathognomonic of hypothyroidism. These cases all show a decreased Basal Metabolic Rate, with temporary or permanent improvement under thyroid therapy. The chief stigmata of interest in these cases, when viewed from the hypothyroid standpoint, are the following: Skin changes, *e. g.*, ichthyosis and eczema, migranoid headache, nervousness, fatiguability, menstrual disturbances, and neuralgic pains—some of these symptoms being associated in certain instances with adenomatous enlargement of the thyroid gland, or even with simple colloid goitre.

CASE XII.—A. S. Female. Age 19. Complains of goitre. Also has a lot of trouble with eczema, which is worst in cold weather. Has hay fever in summer. Quite severe dysmenorrhœa. Examination shows rather a placid girl of good intelligence, with a small colloid goitre of adolescence. There is a small amount of

eczema on trunk and arms, quite mild. The skin is thick and seborrhœic. Under thyroid treatment (desiccated gland by mouth) the eczema improved temporarily, the goitre practically disappeared, the dysmenorrhœa became less troublesome, and the Basal Metabolism rose to normal, remaining normal, however, for a short period only. Following the secondary drop in metabolism the eczema again grew worse, improved to some extent on resumption of the thyroid treatment in larger doses, and again relapsed when the patient of her own accord stopped taking the tablets. Subsequently she was lost sight of for a time, and was under treatment with thyroid and the X-ray. The latter treatment seemed to give definite temporary relief, but the thyroid tablets, although given to the point of intoxication, did not again alleviate the skin condition.

CASE XIII.—M. C. Female. Aged 48. Sensitive to cold. Ichthyosis. Some numbness of extremities. Given desiccated thyroid by mouth, with relief of ichthyosis and general improvement. Basal Metabolic Rate brought to normal.

PROTOCOL—CASE XII.

Date	Weight (Kg.)	B.M.R.	Treatment (Daily)	Remarks
4-5-20	61.0	-13.0%	0.0325 gms. des. thyroid	Mild Eczema. Goitre.
5-9-20	—	—	0.065 gms. des. thyroid	
5-16-20	59.8	-6.0%	0.065 gms. des. thyroid	Eczema better.
7-6-20	60.5	-10.4%		
9-22-20	57.7	-14.2%	0.065 gms. des. thyroid	
11-13-20	—	—	0.0975 gms. des. thyroid	Eczema worse. Cta. better.
12-29-20	—	—	0.0975 gms. des. thyroid	Eczema better for a time but patient left off thyroid and it relapsed.
Not seen for a year— taking X-ray treatments				
1-3-22	No record	+20.0%	0.0975 gms. des. thyroid	Had been taking 0.195 gms thyroid daily. Toxic.

PROTOCOL—CASE XIII.

Date	Weight (Kg.)	B.M.R.	Treatment (Daily)	Remarks
4-8-21	75.6	-12.4%	0.0975 gms. des. thyroid	
5-6-21	—	—	0.195 gms. des. thyroid	No change.
6-4-21	—	—	0.2925 gms. des. thyroid	No change.
7-1-21	73.5	+1.3%	0.2925 gms. des. thyroid	Skin much better. No other symptoms.

PROTOCOL—CASE XIV.

Date	Weight (Kg.)	B.M.R.	Treatment (Daily)	Remarks
8-23-20	49.7	-14.0%		
9-25-20	50.0	-18.0%		Very bad headache.
11-23-20	48.4	-21.4%	0.0975 gms. des. thyroid	
2-5-21	50.3	-16.0%		Much better. No headache since last reading.
3-12-21	—	—	Omitted	Tachycardia, pulsation, nervousness.
3-26-21	49.8	-23.0%		
4-21-21	—	—		Hemicrania, breasts engorged. Uterine cramps.
4-26-21	—	—		Hemicrania.
5-3-21	—	—	Pituitary (whole gland) 0.130 gms.	
5-4-21	—	—		Hemicrania. Menstruation.
5-28-21	—	—	0.130 gms., e. o. d. 0.260 gms., e. o. d.	Severe headache and fatigue.
7-21 to 8-4-21	—	—		Ac. bronchitis and pleurisy.
8-15 to 9-15-21	—	—		Rest at seashore. Big gain in weight

CASE XIV.—H. H. Female. Age 25. Slight, short girl, undernourished. Very intelligent, Marked vaso-motor instability. Complains of trembling inside, undue fatiguability, amenorrhœa (menstruates about once a year), and migraine. Under thyroid by mouth there was a definite remission in headaches and a slight gain in weight. She stated some six months later, when the headaches had recurred, that she considered the results of thyroid treatment little short of miraculous. There was also a slight rise in the Basal Metabolic Rate, which promptly relapsed when the thyroid was discontinued. Pituitary therapy gave no relief of headache. Rapid improvement and gain in weight under rest at sea shore. Not seen since.

CASE XV.—Female. Age 34. No endurance. Vomiting. Constipation. Tachycardia. "Constant fight with my nerves." Treated with slowly increasing dose of desiccated thyroid, with marked symptomatic improvement and return of the Basal Metabolic Rate to normal. Now working a full day as a graduate nurse.

CASE XVI.—G. D. Female. Age 35. Neuralgic pains across shoulders and down arms, beginning one week before menstruation. Thyroidectomy six years ago for exophthalmic goitre. Long convalescence, with insomnia, wild dreams, and loss of weight. On resuming work was easily fatigued, became very disagreeable to work with, had tremor, sub-occipital headache, and neuralgia. Given one large dose of desiccated thyroid by mouth (0.3 gms.), on the basis of her low Basal Metabolic Rate, and had a severe general reaction which lasted one whole month. Extreme nervousness. Dyspnoea so bad that she had to sit at the window to get air.

Insomnia, and wild dreams. Thought she was going insane. Aches and pains all over. Perspired freely. Very excitable and irritable. Said she felt just as she had before the gland was removed. Two menstrual periods during the month. After recovery from this reaction she was put on very small doses over a short period each month—just prior to her menstrual periods. She still has pains at these times, but they are readily controlled by this form of treatment. She holds an important full-time position in commercial cafeteria work, as dietitian in charge of a large restaurant. We are indebted to Dr. H. W. Culbertson for the clinical data on this interesting case.

CASE XVII.—C. F. Female. Age 31. Enlarged thyroid for past two years. Tires easily. Irritable. Upset by trifles. Nervous. Thyroid shows adenoma size of English walnut. No other signs.

This case is an instance of failure of small doses of thyroxin by mouth to influence the symptoms to any degree or to alter the Basal Metabolic Rate. As soon as the desiccated thyroid was substituted for it the patient began to feel better and the Basal Metabolic Rate returned to normal.

CASE XVIII.—G. S. Female. Age 17. Moderate irregular enlargement of the thyroid, apparently adenomatous, for several years; backward in her studies. Sluggish in her actions and attitude when at home. Does not want to do what the rest of the children do. Put on 0.2 mg. Thyroxin by mouth each day, without improvement in her metabolism or general behavior. Dose increased to 0.6 mg. daily, with rise of Basal Metabolic Rate to normal and some im-

PROTOCOL—CASE XV.

Date	Weight (Kg.)	B.M.R.	Treatment (Daily)	Remarks
5-27-20	55.0	-21.0%	.04 gms. des. thyroid	
7-27-20	54.0	-19.0%	Gradually increased	Less tired feeling.
1- 4-21	55.7	- 9.3%	Taking 0.130 gms. for past month	Marked improvement. Works full time as nurse.

PROTOCOL—CASE XVI.

Date	Weight (Kg.)	B.M.R.	Treatment (Daily)	Remarks
2-28-21	61.4	-16.3%	0.3 gms. des. thyroid	Given in one single dose.
4- 1-21 to 3-20-22	—	—	0.325-0.975 gms. daily during week preceding cta.	Serious general reaction.
3-21-22	64.0	- 8.8%	Continue	Feels fine. Working.

PROTOCOL—CASE XVII.

Date	Weight (Kg.)	B.M.R.	Treatment (Daily)	Remarks
9- 9-21	62.0	-14.3%	Thyroxin, 0.2 mg.	
12- 1-21	60.9	-12.6%	Thyroxin, 0.4 mg.	Feels a little better.
2-24-22	61.2	-17.5%	0.0975 gms. des. thyroid	Had taken no medicine during past week.
3-23-22	60.4	- 9.0%	0.0975 gms. des. thyroid	Feels much improved.
4-19-22	60.0	-11.7%	0.0975 gms. des. thyroid	Appears less irritable. Feels fine.

provement in her studies. Not much change in her general attitude. An eczema which appeared before the dosage was raised did not seem to be benefited by the thyroxin medication, but did yield somewhat to X-ray treatment and local applications. This case suggests that small doses of thyroxin given by mouth are often not quantitatively absorbed, and that a relatively small increase in dosage may yield results out of proportion to the degree of that increase.

the active principle of the thyroid gland, and his subsequent achievement in bringing about its synthetical preparation, we have had another means at our disposal of supplying a lack of thyroid secretion where such exists. The following questions therefore naturally might present themselves to any practitioner called upon to treat a case of hypothyroidism:

a. Which is the best form of thyroid preparation for therapeutic use?

PROTOCOL—CASE XVIII.

Date	Weight (Kg.)	B.M.R.	Treatment (Daily)	Remarks
9-15-21	61.5	—20.8%	Thyroxin, 0.2 mg.	
12-21-21	61.5	—24.9%	Thyroxin, 0.6 mg.	Eczema since November 1.
3-22-22	62.5	— 3.0%	Thyroxin, 0.6 mg.	Studies better. Eczema still bad.

In offering this last group for discussion we wish to call attention to a few points which we believe should be emphasized. The tendency of some dermatologists to ascribe every manifestation of cutaneous pathology to some condition inherent in the skin alone calls for an occasional reminder of the important rôle played by the thyroid in determining skin texture (7). While it is not always possible to cure an eczema in a hypothyroid case by the administration of some form of thyroid preparation, it is also true that the mere application of local remedies will not overcome the tendency to recurrence, and it sometimes happens that an injudicious use of the X-ray only serves to aggravate the condition. In Case XII here cited there was a definite remission in the severity of the eczema while she was under thyroid treatment alone, though it was the X-ray which finally caused a temporary clearing of the skin,—used in conjunction with desiccated thyroid tablets.

In regard to migraine and migranoid headache, we have frequently been able to secure temporary relief by means of thyroid therapy in cases showing a lowered Basal Metabolic Rate, though it is not our belief that such headaches are primarily due to thyroid dysfunction. Case XIV is quoted as one of the more striking instances of such temporary relief. This interesting problem will be dealt with in more detail in a later communication, as will a variety of other conditions associated with a lowered Basal Metabolic Rate which are not benefited by the administration of thyroid preparations.

The fact of lowered pulse, temperature, and respiratory rate in hypothyroidism has been noted by most writers. Janney lays considerable stress on it as a diagnostic factor. We have found this phenomenon to occur in most cases, but even in frank myxedema it has not been, in our hands, a constant finding.

DISCUSSION OF TREATMENT

Since Kendall's epoch-making discovery in 1916¹⁴ of what is now generally conceded to be

b. What is the correct dosage, and how can its effects be most accurately judged?

c. What is the best mode of administration of these preparations?

In answer to the first of these questions it may be said that either thyroxin or desiccated thyroid is satisfactory in the ordinary run of cases. There is, however, considerable confusion in this matter on account of the irregularity of absorption of both preparations when given by mouth. In the case of thyroxin this observation has been corroborated by a personal communication to one of us (B) from Dr. Kendall. While it has been possible in many cases to secure a prompt therapeutic effect and a rise in metabolism with a daily oral dose of 0.2 mg. thyroxin (*e. g.*, Cases VII and VIII), the reverse has sometimes been true (Cases XVII and XVIII), and it has been necessary to increase the dose to 0.6 mg. before these effects could be secured. In some instances even higher doses are not quantitatively absorbed when given by mouth. It is probably true that the chance of exciting a toxic action through the administration of thyroxin is smaller than in the case of desiccated thyroid. Suffice it to say, however, that at the Mayo Clinic, where the largest collection of thyroid material in the world is available for study, desiccated thyroid is the preparation of choice for oral administration. We have found good satisfaction from thyroxin in all young cases.

In myxedema it is not infrequent to see a toxic action produced by desiccated thyroid before the Basal Metabolic Rate has been brought to normal. Thus in Case II of our series a most intractable diarrhoea was brought on by this preparation whenever it was administered, although the Basal Metabolic Rate was only once within normal limits. Such an action has been observed by us in at least two cases. A further point worthy of note is that most cases of myxedema, while greatly benefited by the use of this prepa-

ration, do not return to a normal state. The degenerative processes accompanying the disease are in part permanent, and there is a tendency for the patient to put on even more weight than she showed prior to treatment. This phenomenon is shown in Case I, and Means¹¹ reports a similar instance. Plummer states that the myxedema case can be brought to normal and kept there by the proper administration of thyroxin. We have not had the opportunity as yet to test this statement satisfactorily on our true myxedema patients, although we have had in cases of mild hypothyroidism.

In regard to the absorption of desiccated thyroid by mouth, it is a common experience that some cases are highly intolerant to small doses, while others can take as much as ten or fifteen grains daily with impunity. This fact must mean either a difference in absorptive capacity as between individuals or else a difference in the absorbability of different samples of desiccated gland.

From what has been said it must be clear that the most satisfactory way to administer thyroid preparations is by the intravenous route, which avoids the variables incident to the process of absorption from the intestinal tract. The only preparation suited for this purpose is thyroxin, whose accurately quantitative action has been so beautifully demonstrated by Plummer¹². This preparation can be counted upon to raise the Basal Metabolic Rate 2% for every milligram of substance administered, in a subject weighing approximately 150 lbs. Its maximum effect is reached by the tenth day after administration, and its action lasts with diminishing intensity over a period of three weeks. The required dose may be given in a single injection, or in two equal amounts at one to four days' interval. The thyroxin, after being measured, is placed in a test-tube. To this is added 1.0 c.c. distilled water and one drop of 10% NaOH. The test-tube is then boiled for five minutes, after which its contents are transferred to a syringe. The test-tube is rinsed once with 1.0 c.c. sterile distilled water, and the rinsings added to the contents of the syringe. The solution is now ready for injection. We have been able to confirm Plummer's view as to the quantitative action of thyroxin, when given in this way, in several cases of true hypothyroidism (Case XI of this series is an example). There is sometimes a slight general reaction following these injections, but at no time, at least in our hands, has there been one sufficiently severe to cause any concern to physician or patient. The greatest objection to the intravenous administration of thyroxin at present is the cost of the preparation as at present marketed.

In conclusion, a few words of warning as to

dosage may not be out of place. Not so very long ago it was customary in our best institutions to give fifteen grains of desiccated thyroid gland daily to patients suffering from mild or even questionable hypothyroidism. In the light of our present knowledge such a practice must be considered as highly dangerous. Case XVI of this series affords a good illustration of the dangers inherent in so liberal a dosage. The possible harm that may result from taking thyroid preparations by mouth, in a patient who is acting on his or her own initiative, and is not under the observation of a physician, makes it desirable that these preparations be added to the list of drugs that can not be dispensed without a physician's prescription. Generally speaking, when giving desiccated thyroid by mouth, it is safer to begin with a small dose (0.0325—0.065 gms. daily), and to increase it gradually, rather than to start with a larger dose before the patient's tolerance is known. By these means it is usually possible to raise the patient's tolerance to a point which it would not attain under stouter initial dosage. Furthermore, it is often possible to accomplish good therapeutic results with surprisingly small dosage. The correct dose can best be determined by the repeated estimation of the Basal Metabolic Rate. Where this procedure is impossible, careful observation of the pulse rate under constant conditions from day to day is a fairly reliable index.

One precaution must be emphasized in considering the oral administration of thyroxin. This preparation must always be given with a small amount of sodium bicarbonate, as otherwise it has a definitely emetic action.

SUMMARY AND CONCLUSIONS

A study is here presented of eighteen cases showing either:

- a. Myxedema,
- b. Clinical hypothyroidism, or
- c. Certain symptoms suggestive of hypothyroidism, together with a decreased Basal Metabolic Rate and clinical improvement under thyroid therapy.

The thesis is put forward that it is very difficult to classify cases falling in this third group, and to distinguish the true hypothyroid case from the case with a decreased Basal Metabolic Rate for which hypothyroidism is not primarily responsible.

Some observations are recorded as to the behavior of patients in these three groups under the different forms of thyroid therapy.

As a result of this study it is our belief that the most satisfactory type of thyroid therapy is the intravenous administration of thyroxin, controlled, where possible, by repeated estimations of the Basal Metabolic Rate: that, further, both

thyroxin and desiccated thyroid are uncertainly absorbed when taken by mouth, although either will in most instances bring about the desired therapeutic effect: and, finally, that for general oral administration a good preparation of desiccated thyroid is as good as, or better than thyroxin.

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THE VALUE OF CYSTOSCOPIC EXAMINATION IN HEMATURIA.*

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UROLOGICAL symptoms referable to the upper urinary tract consist chiefly of frequency and urgency of urination, difficulty in urinating, painful micturition, blood or pus in the urine, or pain somewhere along the urologic tract. A paper could be written upon any one of these symptoms which would prove that any one of them is important. For this particular paper, the writer has chosen the subject of hematuria, because it is one of such vital importance.

It must always be remembered that hematuria is a symptom, as well as a sign, of some pathology existing in the urinary tract, and that when it occurs, it should be thoroughly investigated, no matter how slight or transient it may appear to be. It should also be remembered that this is one condition which responds very little to any form of internal medication, or to the various styptics or astringent washings, for the main

reason that one is dealing with a symptom rather than the disease itself in the majority of instances.

The numerous possible causes of hematuria at once illustrate that the chances for a clinical diagnosis, without the aid of the cystoscope, are practically nil. It may be of interest to review some of the more important causes of this symptom. Beginning first with the kidney, probably the most common is calculus. There will usually be blood in the urine during or following an attack of pain in that region, due to calculus; however, it is perfectly possible to have bleeding without any attack of pain. Acute infections such as pyelonephritis, will often account for bloody urine. Renal tuberculosis is often first manifested by bleeding or frequency of urination. Hypernephroma, cystic kidney or other tumors are of importance. It has been encountered in a few cases of movable kidney. Lacerations due to trauma must be kept in mind whenever the history suggests it.

Conditions in the ureters giving rise to hematuria are namely, calculi or lacerations due to trauma.

In the bladder, there are several conditions which may cause blood in the urine. Calculi, papillomata, malignant tumors, acute cystitis, tuberculous cystitis, diverticula, rupture of varicose veins at the vesicle neck, and foreign bodies are all important possibilities to keep in mind. Syphilis has been mentioned as a cause. Such drugs as hexamethylamine, when given in large doses over a long period of time, may cause hematuria. The prostate is occasionally the site of bleeding. It is common to have bloody urine in carcinoma of the prostate.

In the urethra, gonorrhoeal infection, calculi, stricture, parasites and traumatism may account for this symptom.

The so-called "essential hematuria" is to be considered, however the majority of urologists are discarding it from their list of possibilities. A diagnosis of essential hematuria should be made only when autopsy fails to reveal any cause along the urologic tract. Idiopathic or congenital hematuria have their places, but rarely. Bleeding from the kidney has been attributed to vicarious menstruation in a few cases.

METHODS OF UROLOGICAL DIAGNOSIS.

A carefully taken history and physical examination are very important. The mode of development offers many suggestions, as well as the type and location of pain, or perhaps the fact that pain is absent. When there is no pain present, one is absolutely at a loss to make a diagnosis without further urological examination. Early tuberculosis, or tumor, for example, may give rise to no pain whatsoever.

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FIG. 1.

Case 1. Male, aged 54, with history of attacks of pain in right side of back for past three years. No shadows of renal calculi on several roentgenograms. Cystoscopy showed two calculi in the bladder, which accounted for hematuria.



FIG. 5.

FIG. 6.

Case 4. Six-year-old girl complained of frequent micturition at night. On two occasions blood was noticed in the urine. Slight afternoon fever and slight sweats at night. Urine contained many tubercle bacilli. Right ureteral orifice showed a few tubercles. Pyelogram of right kidney (Fig. 5) shows inflamed pelvis with some distention of the calyces. Pyelogram of left kidney (Fig. 6) shows normal renal pelvis. The latter was taken five days after the right side. Microscopically the right side contained TBC, the left side none.



FIG. 2.



FIG. 3.

Case 2. Male, aged 35, history of several attacks of pain in left lower quadrant associated with hematuria. Figure 2 shows two shadows. Figure 3 shows one of the shadows to be a stone in left ureter, and the other merely a phlebolith.



FIG. 7.

FIG. 8.

Case 5. Male, aged 57, complained of painful micturition, frequency and urgency, and several attacks of hematuria. Cystoscopy showed a very small opening near the left ureteral orifice, which gave no efflux of urine. Fig. 7 shows the diverticulum partly filled with sodium bromide solution, and Fig. 8 shows it completely filled. (Photographs turned in opposite directions.)



FIG. 4.



FIG. 12.

Case 3. Hairpin embedded in a calculus. 12-year-old girl complained of severe pain on micturition with bloody urine.

Case 8. Woman, aged 25, history of pain in right abdomen for past year. First symptom was hematuria one year previous, but was overlooked as being important. She was operated elsewhere for a chronic appendicitis three weeks before coming to the writer. Picture shows outline of a large pyelo-nephrosis. No urine or indigo-carmin came from the right side. Function was excellent on left side. Right nephrectomy and complete recovery.



FIG. 9.



FIG. 10.

Case 6. Male, aged 70, with very bloody urine and considerable pain in region of bladder. Cystoscopy failed to locate the left ureteral orifice, however there was an opening in that area large enough to insert an index finger into. A catheter inserted into this opening is shown to have coiled up in a separate pouch. The catheter did not return in the bladder. Fig. 10 shows the diverticulum injected through the ureteral catheter, none of the solution returned into the bladder.



FIG. 14.

Case 10. Woman, aged 24, 5 months pregnant, with severe pain in right side of back preceded by history of pus and blood in urine. On inserting a catheter up the right ureter, thick bloody pus came through. The left side was normal. The catheter was allowed to remain in the ureter until the flow became clear urine. Patient recovered from her symptoms, and went on through her pregnancy and confinement in a normal manner. The figure is only shown as a matter of case interest. No pyelogram was necessary.



FIG. 11.

Case 7. Woman, aged 40, history of pain in back and pus and blood in urine for about one year, varying in degree of severity. Tenderness over left kidney. Pyelogram shows distortion of renal pelvis, with complete obliteration of lower calyx. Lower half of kidney filled with pus. Function with indigo-carmin very poor on left, but normal on right.



FIG. 13.

Case 9. Pyelogram in a man of 30, complaining of pain in right side of back. Patient had had pus and blood in the urine, and high temperature at times. This picture would suggest that the kidney had been inflamed and enlarged, but that there was no serious pathology present. Function good on both sides. No attacks followed after a much-needed tonsillectomy.

One of the first things we can all do when these cases present themselves is to try the two-glass test. It may perhaps throw some light on the source of bleeding. The patient voids the first half of the urine in one glass, and the second half in another. If the first portion of urine is clear, the second portion containing blood, the bleeding is likely coming from the bladder in the female, or from the bladder or prostate in the male. Blood in both glasses usually signifies kidney, however it does not rule out bladder lesions by any means. Blood in the first glass alone would naturally point to urethra. But this is not always an accurate test, and at best it

would only locate the area of the lesion. A diagnosis requires considerably more than the location of a lesion. We must know the pathology in order to guide the treatment, whether it be medical or surgical.

The one procedure which brings the most valuable information in these cases is a cystoscopic examination. This will show any of the bladder lesions and, if the blood is coming from one or the other kidney, it will usually be seen spurting from the ureteral orifice on that side. The same is true if coming from one or the other ureter. In cases of microscopic hematuria, it is necessary to insert catheters into each ureter and collect samples from both sides, care being taken not to cause bleeding by manipulation with the catheters. This is only done after bladder and urethral lesions have been ruled out.

In cases of bladder tumor, we are now able, with the operating cystoscope, to remove part of the tumor for pathological examination. If it is non-malignant, it can be fulgurated through the cystoscope, and in most cases completely destroyed.

In conjunction with urological diagnosis, we are called upon to use the services of the roentgenologist. In certain cases it is necessary to inject the renal pelvis, through a ureteral catheter, with some opaque solution, and take a picture, which is known as a pyelogram. This will often be of major importance in the diagnosis of renal tuberculosis, hydro and pyelonephrosis, calculi and tumors. In the case of calculus, it locates in which part of the kidney the stone lies. In this connection it is important to use X-ray catheters, thus showing the course of the ureters.

X-rays frequently show shadows resembling stone in the ureter, which are nothing more than phleboliths. A catheter inserted into the ureter for another picture will immediately differentiate.

Upon cystoscopic examination, if an extra opening in the bladder is noticed, a cystogram should be made. A very small opening may lead to a very large diverticulum. The writer has recently had two interesting cases along this line which are shown in the illustrations.

In the male, the prostate should always be examined. It is often difficult to determine whether or not this is the site of bleeding. O'Neil¹ recently reported a case of interest in this respect. The patient, a man of sixty, who was passing bloody urine, had a considerably enlarged prostate, which was at first thought to be the source of the bleeding. Cystoscopic examination, however, showed that the blood came from the right kidney, which was the site of a hypernephroma.

In conclusion, therefore, let it again be emphasized that hematuria is a warning signal of pathology in the genito-urinary tract. The mildest case of bleeding may prove to be one with a most serious lesion. It is essential that practically all of these cases be examined by the methods which modern urology offers.

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LIFE HISTORY OF THE DOUBLE UTERUS.*

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THE clinical significance of uterine anomalies in obstetrics and gynecology has had but very little consideration by the practitioner, hence their effect on the progress of pregnancy, labor, and the sexual life of the woman is not well understood.

During the past few years, it has been the fortune of the writer to meet with a relatively large number of uterine malformations associated with pregnancy, labor and the puerperium; and to study the effects of these defects on the course of gestation, labor and the puerperium, as well as to see the effect of pregnancy on the subsequent behavior of these malformations. It has for this reason, and in order to add our mite to the clinical knowledge on this subject that we are making this presentation.

It is well known that the tubes, uterus and vagina, are a result of the perfect development of the two Mullerian ducts; and that the uterus and vagina are formed from the natural coales-

cence and the subsequent absorption of the septum between these tubes; and furthermore, that anomalies of the uterus and vagina occur when this natural coalescence and absorption is arrested or faulty. Nagel groups these uterine anomalies of formation into (1) those which appeared before the origin of the genital cord, including absence of the vagina and uterus or the presence of two complete uteri and vaginæ; (2) those arising after the formation of the genital cord including the uterus duplex bicornis; (3) those arising while the fusion of the Mullerian ducts was going on, up to the origin of the round ligaments including uterus bicornis unicolis and uterus subseptus unicolis. The malformations which I especially wish to deal with are the bifid developments; for fortunately from an obstetrical point of view, there are only two classes that need to be considered, one in which both horns are perfectly developed; and the other form in which only one horn is developed.

The bifid developments may be either equal or unequal, consequently the equal development may result in the formation of two canals by a simple partition or septum through what appears to be one body, or a partial or complete separation into two bodies. This development varies in degree, hence, there may be a more or less complete septum forming two canals in the uterus and vagina. This dividing septum, however, varies in its extent, that is, its coalescence and absorption may cease at several different points with the result that we may have; (a) mere outline of a partition which projects from the fundus, rarely recognized through life and having no clinical significance; (b) the septum may extend through the body to the internal os, such a septum is frequently destroyed by the presence of intrauterine pregnancy; (c) or the body and cervix may be divided by a septum into two distinct canals, the uterus in two halves, in which case pregnancy may occur in either half; (d) or the septum may be incomplete in the lower half of the vagina; while it is complete higher up, or finally there may be a complete uterovaginal septum forming two distinct canals, two semi uteri, two complete vaginal tubes; consequently we may have as a result of this coalescence and defective absorption; the double uterus either in the form of the uterus bicornis unicolis, the uterus bifidis, the uterus didelphys, or the uterus unicornis with a rudimentary horn. We have never seen the complete absence of one horn of the uterus, and the corresponding absence of the tube and ovary, and round ligament on the arrested side.

Before considering the clinical significance and vagaries of these anomalies, I will briefly describe the anatomical characteristics of these major dual formations.

The uterus didelphys has its two component

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halves so completely separate, that each seems as if it were a single organ, yet, that each is not a whole, but only one-half of the perfectly developed uterus, is shown by the possession of only one tube, ovary and round ligament. The vagina may also be either completely or incompletely double or it may be single.

Uterus Bicornis.—*The uterus bicornis is less rare than the uterus didelphys; in it the two halves are united to some extent at their lower ends, but remain apart at their upper extremities.* This two-horned uterus, therefore, stands as the intermediate type between the completely separate semi uteri; and the cases where the organ is externally single, but has an internal septum, more or less dividing it into two cavities. The chief external anatomical character of the bicornate uterus is the *presence of the notch at the fundus*; the two horns diverge from each other toward the lateral pelvic walls and the broad ligaments are short; where the divergence is most marked there are commonly two cervical portions. In other instances, the cervix may be single, though occasionally the canal is divided by a septum.

The third form is the uterus unicornus with the attachment of an undeveloped horn, at or just below the level of the internal os. This horn is an evidence of the unequal development of the two sides, and forms an assymetric organ. Usually one canal may be completely atrophied, while the other half may be a well developed horn. The complete absence of one horn is usually associated with absence of the corresponding tube, ovary and round ligament.

One horn may be rudimentary or partly developed, the connecting bridge or neck consequently may be pervious or impervious, while the cavity, if one exists, is lined with a uterine mucosa; and if this horn has no communication with the other, and the menstrual blood accumulates and a hematometria is formed; or the implantation of an impregnated ovum may take place and produce serious pathology.

When the division between the two halves of the uterus is complete, and the bodies are widely separated from one another, there is *always a fold of peritoneum running from the rectum to the bladder which passes through the cleft between the two horns.* This is the ligamentum recto-vesicæ.

Clinical Features.—There may be no symptoms which in any way direct the attention of either the patient or a physician to the presence of an anomaly. Even the physical examination may not always definitely place the form of malformation. Menstruation seldom appears to be altered or interfered with, though there are type changes in some cases, for instance, in double uterus the menstruation may occur every two

weeks, every month, or only once in every two months.

In the first case, the menstrual flux comes from each uterine cavity alternately, every two weeks, there being no coincidence of function; each side menstruates independently of the other.

In the second class, both sides menstruate simultaneously, or each side functions alternately every other month.

In the third instance, there is a bi-monthly flow from one-half, while on the other side there may be an imperforate condition of the horn, of the vagina or of the hymen, which obstructs the egress of the discharge, with the development of a hematometra. Usually, however, there is no disturbance of the menstrual function until pregnancy takes place.

Sterility is comparatively uncommon. In whichever horn the fertilized ovum is grafted the other horn enlarges, becomes softer and its endometrium undergoes a decidual reaction. Miscarriage and premature labor is very common, the uterine wall not being sufficiently developed to accommodate itself to the growing ovum; again these double uteri are very prone to infection.

Amongst the hundred women with didelphic or bicornute uteri, collected by McGregor, there were seventy who were married, and fifty-six of these had borne children, only fourteen being nulliparous.

Pregnancy may occur in one or both horns of a double uterus; the proportion of twins with bicornute uteri is distinctly greater than in normal cases, for whereas with the single uterus the proportion is 1-89; with double uteri it is 1-12. Usually when pregnancy occurs in but one horn, there is amenorrhœa. On the other hand, it is possible for the unimpregnated horn to continue to menstruate during pregnancy; a condition which explains the occasional occurrence of the menses throughout gestation.

While gestation may occur simultaneously in both horns, it may also occur at different periods; one horn becoming pregnant, say three months or so after the other; the condition is known as super-foetation.

In one of the writers' cases, the woman became pregnant in both horns, miscarrying at the sixth month simultaneously and spontaneously. In another, with pregnancy in both horns, one was delivered of a miscarriage at the third month, while the other went to full term and delivered a living baby.

Labor is frequently normal, but many abdominal complications are reported. Obstruction may result either by the non-pregnant horn, becoming displaced in front of the presenting part, or by the delivered horn being pushed down into the

pelvis or the uterine tissue at the level of the supravaginal cervix forming a buttress in front of the advancing fetus. The presentation is frequently abnormal; transverse positions are common owing to the obliquity of the uterus. The septum between the uteri may be ruptured and the child be expelled through the cervix of the unimpregnated horn.

Abortion is not uncommon, and herein lies one of the first serious complications of the double uterus, but owing to its anatomical construction, complete abortion in the early months is relatively rare, drainage being impaired; masses of membranes may be retained with consequent arrest of involution, and some associated parametrical involvement, hence the puerperal morbidity is higher.

When the abortion is complete, it is not uncommon to have the miscarriage followed by a persistent metrorrhagia, owing to the retention of a decidua in the unimpregnated horn which is not cast off at the time that the pregnant horn expels the gestation contents.

Postpartum bleeding is another complication which is commonly met with, owing to the inertia due to the maldevelopment or retention of the placenta which seems more difficult to expel owing to the obliquity of the uterine axis.

On two occasions we have seen the right uterine cavity curetted, and the metrorrhagia from the left cavity persist. When the rudimentary horn of a uterus unicornis is impatent in its lower part and pregnancy occurs in this horn, a condition of affairs comparable to ectopic gestation is brought into existence, and with it all of the risks of rupture and hemorrhage.

Fortunately there is a symptom complex which is so constant as to be suggestive, *i. e.*, the usual signs of pregnancy, together with recurring shooting pain through the affected side, persistent soreness and tenderness of the lower abdomen on that side, and an increasingly sensitive tumor.

Labor in the double uterus may, however, be uncomplicated, and the duplication only recognized accidentally during the third stage. On the other hand, many curious accidents have been reported.

In one of the writers' cases, the unimpregnated uterus blocked the pelvic cavity, causing a dystocia which necessitated section. In another, the undeveloped horn so filled the pelvis after delivery as to cause a lochiometra, its removal established drainage. In Gardinis' case, the child presenting as a breech, tore through the vaginal septum, having its legs astride of it. In Merlos' case, dilatation was extremely slow, owing to a cervical stenosis from maldevelopment.

The double uterus is prone to infection, for uterine drainage is always impaired. Fortunately, one side may have an ascending infection

while the other side may entirely escape; just as a woman may fail to become pregnant in one horn, and subsequently become pregnant in the other.

The points of clinical significance therefore, are: First, there are no symptoms until after menstruation is established; second, menstruation may not be disturbed in quantity, time of occurrence or character, until after marriage; third, sterility is not common; more than two-thirds of married women become pregnant, but labor and the puerperium may be complicated; fourth, the double uterus is rather more prone to infection than the normal uterus; its faulty drainage favors extension; fifth, infection and pregnancy tend to leave a greater pathology in the pelvis than similar conditions in a normal uterus; sixth, the uterus unicornis with a rudimentary horn is the most serious anomaly, yet both pathologic conditions; hematometra and pregnancy, which may occur in this horn have a symptom complex so clear, that if proper credence be given to it, their danger may be averted.

THE TREATMENT OF CERTAIN CONDITIONS OF THE CERVIX UTERI.*

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ONE of the most interesting things that has happened to American gynecology in recent years has been the change in the interpretation and understanding of the pathology of the uterine cervix based on the somewhat dogmatic dictum that every lacerated cervix is infected. This, I think, has been largely due to the fact that most observers believe that the finding of round cell infiltration under the microscope spells inflammation and that inflammation always spells infection. Many seem to have lost sight of the fact that round cell infiltration is, perhaps, just as often due to long continued passive congestion. This idea of all lacerated cervixes being infected then leads to the teaching, in certain quarters, that all lacerated cervixes should be amputated with removal of all of the cervical canal. The result of the acceptance of this teaching has been that a great deal of needless surgery has been done and that the differential diagnosis of certain conditions of the cervix has been neglected.

The purpose of this paper is to attempt to revive the interest in the diagnosis of pathological processes taking place in the cervix and in treatment based on the pathology present rather than on the mere presence of a laceration. Many women go through their child bearing period with at times rather extensive lacerations, without symptoms, bearing children without diffi-

* Read at the Annual Meeting of the Medical Society of the State of New York, at Albany, April 19, 1922.

culty, and after passing safely through the menopause to have their cervixes atrophy to such an extent that surgery for the repair of the cervix itself is no longer necessary. The writer does not mean to imply that these women do not need attention. They do, and that of the most careful kind. As soon as symptoms of disturbance appear, treatment must be instituted. If one is convinced that the patient is one who will not present herself for examination at stated intervals or whenever she first notices anything at all out of the ordinary, then we believe that an operation is the best thing for that patient. Intelligent women will, however, generally appreciate the necessity of systematic review and if properly informed will gladly present themselves for examination whenever told to do so.

Before intelligent and successful treatment can be carried out an understanding of the pathological process present is necessary. It is not the purpose of this paper to touch on the anatomical malformations or the new growths but to confine itself to the congestions and inflammations whether due to lacerations or not. The questions we should ask ourselves are: "Are the symptoms of which this patient is complaining due to the congestion or infection present or to the laceration itself?" if the cervix is lacerated, and "Is it possible to relieve this congestion or remove the infection without doing any operation on the cervix?" and "Is it possible for this woman to go on bearing children with the degree of laceration present?"

For the purpose of discussion we may divide these cases into four classes: (1) The congested non-lacerated cervix; (2) the infected non-lacerated cervix; (3) the congested lacerated cervix; (4) the infected lacerated cervix. By congestion we mean a venous engorgement due to the loss of circulatory balance between the arterial and venous systems. Congestion is of course present when a cervix is infected as it is part of the phenomena of inflammation but congestion, *per se*, does not necessarily mean that the tissue is infected. Thorough history taking and careful examination with the question "What is going on here" always in one's mind will, in the majority of cases, lead to a correct diagnosis. Here it may be well to remember that the uninjured cervix is particularly resistant to infection save that by the gonococcus and tubercle bacillus and that the presence of a purulent discharge from an uninjured cervix is pathognomonic of gonorrhoea. In the majority of cases of the simple congested cervix some other lesion is present which may be wholly or in part the cause of the disturbance. The correction of this other lesion will in many cases allow the cervix to recover its normal condition.

The results of passive congestion of the cervix are that the size of the cervix is out of proportion

to the rest of the uterus and that the weight of the uterus as a whole is increased. This heavier than normal uterus drags down on its supports thereby increasing the congestion so that a vicious circle is established. The mucosa and submucosa are engorged and edematous and as increased blood supply means increased glandular activity there is an increased leucorrhoeal discharge. This increased alkaline discharge flowing over the portio causes erosions which at times are quite extensive. Under the microscope the vessels are engorged and there is a varying amount of round cell infiltration depending upon the duration of the process. If this congestion be allowed to continue the result is hyperplasia of the fibrous connective tissue.

(1) *The Congested Non-lacerated Cervix.*—This is the least common of the four types. It is often found in young unmarried women who complain of a leucorrhoeal discharge and who have some backache which is generally relieved on lying down. Examination reveals a soft, slightly enlarged cervix, generally eroded, often associated with moderate retroversion or with ante flexion. There is often a certain amount of ptosis and many of these young women have a faulty posture. Constipation is quite often a prominent symptom and in many of these young women is the primary cause of their pelvic congestion. In many of these cases correction of the associated conditions is all that is necessary but in some the cervix itself demands attention especially when erosion is present. The treatment may be summed up in two procedures—support and local treatment. In the unmarried woman it is not always possible to fit a pessary but in many it is, and there is no one thing so successful as a proper pessary in the treatment of congestion of the cervix or of the uterus as a whole. The simple removal of the drag on the pelvic structures will allow the pelvic circulation to adjust itself in the vast majority of cases. The local measures employed are douches and local applications. How much benefit is derived from douches is open to question. Many local applications have been advocated from time to time but the one which has given us the best results is the electric cautery using a fine tip and lightly brushing over the erosion. The cervical mucosa does not need any attention unless the congestion has been of long duration and there is much hyperplasia of the glandular tissue as evidenced by a dilation of the cervical canal. We wish to emphasize the fact that in most of the cases of this type the fault lies not in the cervix itself but in some other condition and that the cervix is not so much sinning as sinned against.

(2) *The Infected Non-lacerated Cervix.*—The commonest etiological factor in this type is, of course, the gonococcus, and the condition is generally associated with gonorrhoeal infection else-

where in the genital tract but we are interested at present only with the cervix. The organisms are found in the cervical glands near the entrance at first but as the disease progresses deep in the racemose portion. Soon secondary infection sets in and many organisms are found. The glands are surrounded by an inflammatory reaction, the secretion is profuse and purulent. The mouths of the ducts become occluded and cysts are formed. The symptoms are a mucopurulent or purulent discharge, pelvic pain and backache. Examination reveals a large tender cervix bathed in discharge and with marked erosion. The canal is generally slightly dilated; the mucosa is seen to be red and congested and bleeds easily. If seen early the consistency is soft and edematous but if the process is of long duration and has become chronic the cervix is hard and hyperplastic and Nabothian cysts are present. At times many of these cervixes are of relatively enormous size. It is just in this type that the cautery treatment has its most brilliant successes. Careful systematic destruction of the deeply infected glands with puncture of cysts will in the vast majority of cases obliterate the disease. It cannot be done in a few days or weeks but often is a matter of a couple of months or so. It will be remembered that the more complicated and deeper racemose glands are near the external os and that the glands become more simple and less deep as they approach the internal os, and that the cells themselves are not so deeply cylindrical. Therefore the cauterization is less deep as we approach the internal os. Many of these cases have tender utero-sacral and broad ligaments with tenderness over the lumbar glands, not because there is extension of the process into these structures but because of the pelvic lymphangitis analogous to the lymphangitis of the arm and tender glands in the axilla in the presence of an infection of the hand. When the infection of the cervix is removed the tenderness disappears. A great many of these cervixes have been amputated when careful cauterization would have saved them. In the older types when hyperplasia is well marked the cautery is not sufficient and after the infection of the canal has been removed the cervix itself demands operation.

(3) *The Congested Lacerated Cervix.*—This is the type most commonly seen, generally associated with subinvolution, lacerations of the pelvic floor and with varying degrees of retroversion. The cervix is found low in the pelvis, lacerated to a varying degree, large, soft, edematous and dusky in color. There is more or less mucoid or at times muco-purulent discharge. The lips of the cervix are everted, eroded and the exposed mucosa is smooth and reddened. Here the condition of the cervix depends entirely upon the degree of the pelvic congestion and in many of these cases the removal of this congestion by the support of a pessary will allow the cervix to involute with the

rest of the uterus. In some cases with moderate laceration either unilateral or bilateral, deep lineal cauterization after the method of Hunner with brushing of the erosion, will invert the lips and leave a functioning cervix. Operation is indicated in these cases only when the woman has passed the child-bearing period or when the lacerations are very extensive, or where there is an associated laceration of the perineum to the extent that a pessary cannot be kept in position. If a laparotomy is necessary for any reason a trachelorrhaphy can be performed. The latter should be the procedure of choice unless the lacerations are so extensive that a satisfactory repair cannot be done. Here again if the condition has been neglected and has been present so long that hyperplasia is present, as evidenced by a hard, large indurated cervix, operation is necessary. Again we wish to emphasize that if seen early in the process the majority of this type of cervix may be saved by support and cauterization.

(4) *The Infected Lacerated Cervix.*—It is perfectly true that congestion predisposes to infection and many cases of this fourth type originally belonged in the third. Many of them are infected from the time they were lacerated and the treatment depends upon the length of time that the infection has been present and the degree of the reaction upon the part of the tissue. Here the picture is the same as that of the congested cervix plus the signs of infection. The purulent discharge, the cysts, the easily bleeding exposed mucosa, the tenderness and the signs of pelvic lymphangitis. The degree of the infection bears no relationship to the extent or character of the laceration. It may be severe in a slightly lacerated cervix or mild in an extensively lacerated one, and so the treatment depends largely on the degree and duration of the infection. The early destruction of the infected glands, the puncture of cysts, linear cauterization to cause inversion and support will do wonders with these cases. Even when the necessity of operation is evident the advantage of the removal of as much of the infection as possible is evident to all of us. All of us have had some rather unsatisfactory results following operation in the badly infected cases. One of the reasons that Emmet and his disciples had such beautiful results with their operations on the cervix was the long continued treatment before operation. Many of these women may have a satisfactory repair after the infection and congestion have been removed rather than an amputation while yet in the child bearing period, and I think all of us are agreed that a woman with a repaired cervix is much better able to become pregnant and to bear her children than one who has had an amputation.

In conclusion we believe that the treatment of conditions of the cervix depends not so much on the presence of lacerations as upon the pathological changes taking place in that cervix whether lacerated or not.

NITROUS OXIDE OXYGEN—ITS VALUE AS A GENERAL ANÆSTHETIC IN GENITO-URINARY SURGERY.*

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NITROUS oxid was discovered in 1772, oxygen in 1774. Anæsthetic properties of the former were not considered until 1844. The combination of nitrous oxid and oxygen was first used in 1868 by Dr. Andrews of Chicago. Since that time, the combination has had its ups and downs as a general anæsthetic, until to-day it is used to a large extent all over the world. It is actually only a few years ago that impurities existed in nitrous oxid which gave rise to dangerous symptoms similar to carbon monoxide poisoning, that even large amounts of oxygen could not correct. Fortunately, this condition no longer exists. Cumbersome apparatus may also have had its share in keeping gas oxygen in the background only to be used for the occasional case. To-day, we have pure nitrous oxid and oxygen, simple apparatus and experienced anæsthetists, so there is really no valid excuse why it should not be used more frequently than it is. I believe I can safely say that in the late war its value was demonstrated in many ways and its lack of availability early in the war was the cause of the loss of man power as well as of lives. To the urologist, it has been a great help. There is no denying the fact that the urologist, from a surgical viewpoint, is confronted by extrahazardous surgical risks. To safely pilot these cases over a surgical journey requires great patience and great preoperative preparation in order to make a safe landing and not to have too stormy a voyage. The laboratory has been of vast assistance to the urologist in his preliminary preparation. While the anæsthetist is alert to the needs of this proper preparation of the urological patient, the urologist does not always give proper credit to the anæsthetist in his description of surgical success. The proper choice and proper administration of the anæsthetic are very vital in urologic surgical cases. The choice of an anæsthetic for these cases, as for that matter, for all surgical cases, is apparently a matter of personal opinion. The same might be said of the type of operation selected. We must all admit that experience plays a great rôle in the success of any undertaking, and that the man with a large experience will unquestionably do more finished work in shorter time than the novice. This fact is one that accounts for so many failures in gas oxygen anæsthesia. That it is the pleasantest general anæsthetic to inhale and that it is the safest anæsthetic when in the hands of the expert anæsthetist are two facts that admit of no controversy. Flagg, in his book on anæsthesia says, "Gas

oxygen is by far that most difficult anæsthetic to administer. From the aspect of mere labor, the method is unpopular for those who simply give 'Dope' but for the man who can catch the spirit of the work, for the man who is interested in the 'Art of anæsthesia' the method is fascinating." This is very true and when the surgeon co-operates with the anæsthetist the patient reaps the benefit of such co-operation.

You may well ask the question "Why this enthusiasm for nitrous oxygen?" It has been mentioned that these cases are extra-hazardous surgical risks. Hence it is necessary to choose a safe anæsthetic. Inasmuch as the gas is non-irritating, it has no harmful effect on the lungs. It causes no chemical or morphological changes in the blood because it is merely in physical solution. It is not eliminated through the kidneys and hence it is reasonable to assume that it will have no harmful effect on these organs. Nitrous oxid alone causes a rise in blood pressure, combined with oxygen, however, it can be used with great safety, even in cases of hypertension. Thus from a physiological point of view, it should be the anæsthetic of choice in urological cases. The claim is often brought forth that there is not sufficient relaxation with gas oxygen. To some extent this is true, but while a few cases require a minimum amount of ether (one to four drams), this will not produce the irritation that a straight ether anæsthetic would cause. I am aware of the custom of some anæsthetists who use ounces of ether with gas oxygen, but this is not the case with the experienced anæsthetist, especially in this class of cases. Furthermore, the surgeon should be willing to co-operate to the fullest extent with his anæsthetist for the welfare of the patient. It is most gratifying to see the post-operative results where full co-operation of surgeon and anæsthetist is carried out. Chloroform is practically out of consideration or at least should be. Clinical experiments with ether and chloroform have proven the great likelihood of anuria and lowered blood pressure in practically normal animals unless these animals had been properly prepared by previous administration of alkalis. In some of these animals where the acid equilibrium of the blood was disturbed, treatment was of little avail. How much more would these agents affect a body whose kidneys were already diseased.

Dr. R. Fitz of Rochester, Minn., in a recent article (*American Journal of Surgery*, April, 1922) in speaking of "Surgical Anæsthesia in Relation to Diabetes Mellitus," makes this statement which is in italics, "I have studied the effect of gas oxygen anæsthesia on the blood chemistry of several diabetic patients and have been impressed with the reaction which it apparently produces. It causes hyperglycæmia without acidosis and even seems to reduce an acetoneuria. On this account theoretically it is an excellent anæ-

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thesia for diabetics. This opinion is supported by Joslin's practical experience. He considers nitrous oxid oxygen the best general anæsthetic for diabetics provided it is administered by one trained in their use." This latter statement seems to be the one great point, "if administered by one trained in their use." Dr. Fitz further says, "That ether is the anæsthetic of choice at the Mayo Clinic and that it has certain theoretic objections in diabetes as it is known to cause acidosis and hyperglycæmia in the normal person and this reaction may be exaggerated in persons with diabetes. Because of this internists advise against its use preferring gas oxygen or novocain. If ether is employed, both anæsthetist and surgeon must remember Crile's statement, the surgeon and the anæsthetist alike must realize that during an operation each is draining the store of reserve alkalinity. The surgeon must use gentle manipulation and produce the least trauma in order to conserve the patient. The anæsthetist must use the lightest possible, even anæsthesia, administered with the least psychic trauma." This is certainly a very frank confession. It is a question of debate when we come to compare local anæsthesia with gas oxygen and choose the preferable one. I wish to go on record that there is no one type of anæsthetic that excels in all cases. The real proposition is to select the proper anæsthetic for the particular case and not be limited to one type alone. I will furthermore go on record that I believe, however, that there are fewer contra-indications to gas oxygen, if properly administered, than to either ether or local anæsthesia. The success of local anæsthesia depends upon the proper selection of the case, the patient and the administrator. Local anæsthesia as yet, has not become a part of the general anæsthetist's work, although there has been the question raised if it should not be. At present, the surgeon administers it and really makes it a part of the aseptic surgical technique. Perhaps if developed by the anæsthetist it would show greater possibilities than it now does. I have been informed by surgeons that in their experience they have had better post-operative results when gas oxygen was used than where local anæsthesia was used. No doubt the results of the surgeon who has developed a technique as Farr has, can boast of better results than the surgeon who only occasionally uses local anæsthesia. Hence, in summing up, it is really a question of the most experienced administrator or surgeon having the best results. One cannot acquire experience by only occasionally doing a thing.

In conclusion, I wish to say that I am optimistic enough to say that if gas oxygen were given a proper chance, it would prove all I have said about it, that more lives would be saved and that the post-operative course would be much smoother. Let me also emphasize, however, that unless the patient is properly prepared in these cases, that no type of anæsthetic will save them.

THE TREATMENT OF CUTANEOUS ANTHRAX, WITH A FEW REMARKS ON PROPHYLAXIS.*

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ANTHRAX is, as we know, a very common disease among herbivorous animals. Cattle, sheep and horses are most frequently affected. Its distribution geographically is a most widespread one. While all herbivorous animals are susceptible to anthrax and carnivorous animals enjoy a relative immunity, the latter are not by any means immune. Thus dogs, cats, etc., may fall victims if in intimate contact with the infecting agent.

The disease is disseminated among animals by the products of animal life, the urinary and fecal discharges, the hair and hides of infected animals, and the cadavers of animals dying of the disease. Even animals who have never manifested symptoms of the disease, may harbor anthrax bacilli in their hair, as recently shown by Gegenbauer.¹

The anthrax bacillus located in infected materials finds frequently conditions in the soil such, that it readily produces spores. These spores have great vitality and may remain a potential source of infection in the soil for years. By rains, the inundation of land, soil drainage, by water flow and carrier birds, such as buzzards, the infecting organism may be carried to uninfected districts, and thus, large tracts of land may become contaminated. Cattle pasturing on such lands become in turn infected, the organism usually entering by the gastro-intestinal route.

In the prevention of the disease in cattle a few of the more important measures may be mentioned. They comprise in brief, (1) the prevention of the continued impregnation of the soil by the proper disposition, namely burning of infected carcasses of animals dying of the disease, (2) the destruction of the virus in the soil by its proper drainage and cultivation, and (3) the proper disinfection of all imported hair and hides, including the proper disposal of all waste matter, smudge and drainage water from tanneries, and (4) the prevention of outbreaks of anthrax by a thorough course of immunization of all susceptible or exposed animals with anthrax vaccine. This latter method is very efficient, but may have to be repeated at intervals where animals are pasturing on infected lands.

Man has a high relative immunity to anthrax yet human infections occur, as we know, especially in the form of cutaneous anthrax or malignant pustule, the form of the disease with which we are concerned in this paper. The infection is almost always contracted from animals, either

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direct, as in the case of those whose occupation brings them in close contact with the latter, and this was in the past the usual manner of contracting the disease, or from animal products, such as the hide or hair, which is seen in those employed in industries handling such articles, or as has been seen more and more since the beginning of the world war, among persons using such products.

The danger from native hides may be considered almost negligible (Eichhorn²), and this is due to the fact that in the United States, Canada and many European countries the sanitary measures employed prevent the skinning of anthrax carcasses. Such is not the case, however, in the Asiatic countries, and hides and hair imported from these countries have been found to be highly infected, consisting many times of the hides of animals that have succumbed to the disease, and which have not received any adequate disinfection before they were packed and shipped. Before the war mostly all materials, such as horse hair or pig's bristles, etc., were commonly subject to cleansing or disinfecting processes in France or Germany.³ When the war began, these materials began to come direct to the United States via the Pacific route. Through ignorance or reliance on the certificate of disinfection accompanying the shipments, some American brush manufacturers took no proper means of disinfecting these products. The result has been the outbreak of a greater number of anthrax cases during the last five years. Many of these infections were contracted from the use of brushes made of this imported hair, especially horse hair, which is notoriously infected. Hubbard⁴ states that in the testing of numerous samples of horse hair and brushes made from horse hair, especially shaving brushes, 80% have been found to be contaminated with the spores of anthrax. In thirty-three cases of shaving brush anthrax infections, twenty-one, or 64 per cent, died.⁵

As we know, various very excellent health regulations have been adopted to eliminate the danger from these imported anthrax infected materials. One wonders whether they will be entirely effective or if we shall have to follow the example of Great Britain, by the construction of a specially planned disinfecting plant at the point of importation or exportation in which a method of disinfection experimentally found effective is carried out, in the case of all hides, hair, and wool imported from suspected infected or infected anthrax areas.

Anthrax is rarely transmitted from man to man, although a few instances of such transmission have been recorded.

From the standpoint of treatment, early diagnosis is of the utmost importance in saving the life of the patient. One fact that stands out

prominently is the failure of many physicians to recognize the disease. In the study of thirty-four cases, occurring in New York City, made by Hubbard and Jacobson,⁶ in not a single instance did they find that the disease had been recognized by the family physician, when the patient first applied for treatment.

Many of the methods of treatment in common use in cutaneous anthrax or malignant pustule have been utilized for long past a century even at a period when the etiological agent was entirely unknown. Thus Thommassin, in the Thesis of Jean Geraud,⁷ published in 1820, advises the use of poultices, incisions which he warns must avoid the healthy tissues, and the cautery which as he states may be by the red hot iron or by chemicals, mentioning among the latter sulphuric acid, nitric acid, caustic potash, and silver nitrate.

It is surprising that we should still be employing such drastic means of treatment of a disease of which we are now, and have been for over forty years, in possession of the etiological agent, and for which for a number of years a serum has been found by Marchoux of France and Sclavo of Italy.

Strange to say, the serum treatment of the disease has not at all come into use in this country until of late. With the exception of the reports of Royer and Holmes⁸ in 1907, of eleven cases of anthrax treated in part by Sclavo serum, the writer has been unable to find any previous record of its use in this country until the last five years.

The older measures of treatment certainly have decided disadvantages and limitations which we must now recognize. Thermocautery, which is one of the oldest methods in use, should be entirely omitted from the therapy of the disease. It is an extremely painful procedure, produces many times marked deformity, destroys indiscriminately both dead and living tissue and unless applied thoroughly, seals off from free drainage tissue which is still infective. Moreover as it is by no means certain, and as the barrier zone to the infection is apt to be broken down, thereby producing a septicæmia, the treatment is not justified by the results that it gives.

Chemical caustics possess many of the same contra-indications. Superficially applied, they are only palliative. To be at all effective, the application must be thorough and with many repeated. The severity of the method, the pain produced, the subsequent development of more local edema, the indiscriminate destruction of both dead and living tissue, and the prolonged convalescence renders this method an undesirable one. Its lack of specificity is shown by the diversity of the chemical solutions recommended.

Of the surgical measures, incision is the oldest. It is now in general disrepute as a treatment for anthrax, and is commonly resorted to only in instances in which the physician fails to recognize

the disease, and believes he is treating an ordinary carbuncle. It is a most dangerous method, because of its tendency to disseminate the disease locally and into the circulation as well.

Excision is the surgical method which at present is most commonly used. Good results have been reported in numerous cases, but as the method is frequently combined with thermo or chemical cautery or with serum, it is difficult in many instances to tell to which the recovery has been due. It is undoubtedly true and has been commented on by many writers that following excision there may be a rapid extension of the local involvement and the development of a septi-cæmia.

Excision despite its advantages over incision and the use of cautery, has certain outstanding limitations and disadvantages which the writer believes makes it an inappropriate treatment if there is another which is reliable, applicable to all cases, and which is not so severe. Thus in anthrax of the face, especially of the lips, eyelids, and ears, excision will always be objectionable from the esthetic point of view. As with incision there commonly follows a further extension of the edematous process after operation. The pain at the time of the operation, and subsequently, and the possibility of hemorrhage in extensive and deeper seated lesions must also be considered. Probably the most frequent source of danger in the method is the difficulty of accurately defining the area to be excised especially in medium and voluminous lesions with marked edema and induration in which we cannot easily determine the limits of the infective process. To excise less than the entire area involved is to subject the patient to the pain and discomfort of the operation without a compensatory result in the way of a certain cure. On the contrary, as the barrier zone to the infection is broken down, and the blood and lymphatic channels of absorption are widely opened, the danger of disseminating the disease locally and into the blood stream is considerably increased. Since anthrax in man is primarily a local disease, and tends to remain as such, any treatment which may tend in the slightest way to generalize the infection is scarcely to be looked on as proper therapy. When the infection has become generalized, then excision is useless. Moreover, anthrax bacilli have at times been shown to remain in the wounds for almost three weeks⁹ after operation, and in the presence of blood clots rapid multiplication may occur.

Besides the methods just mentioned and in addition to anti-anthrax serum, various other means of treatment have been proposed, the majority of which have been spoken of in a previous presentation¹⁰ and will not be referred to now.

Two of these methods that have given very encouraging results are arsphenamin and normal

beef serum. The use of arsphenamin is in its experimental stage, and no opinion can be passed on it at the present time.

Normal beef serum has of late come into prominence in the treatment of anthrax, following the publications of Penna, Cuenca and Kraus.¹¹ These authors have reported successful results by the subcutaneous and intravenous injection daily of 10 to 50 cc. of normal beef serum heated to 56° for half an hour before use. In the last 180 cases treated the mortality was 11.6% or 3.4% omitting intestinal cases. Lignieres¹² has been unable to confirm the assertions of Kraus and his collaborators as to the curative value of normal beef serum. He has reported extensive experiments, all apparently proving that these authors have been misled in their statements of its efficacy. Kolmer¹³ has also shown from experimental work with normal beef serum that while the latter contains some anti-bactericidal properties, it is without demonstrable protective or curative value in experimental infections in mice and rabbits. A similar observation, relative to the protection of rabbits, was made by Hutyra and Maninger.¹⁴ Gerlock¹⁵ recently undertook experiments on fifty-one rabbits in order to test the statements of Kraus and Beltrami already contradicted by Hutyra and Maninger, that the sera of normal cattle, horses and sheep can produce a passive immunity to anthrax in rabbits, just as anthrax immune serum. This investigator found that while the intravenous injection of anthrax immune sera obtained from three horses, protected rabbits in ten series of experiments from the subsequent subcutaneous injection of virulent anthrax cultures, in a like number of experiments, immunity could not be produced by the serum of twelve normal animals (ten horses, one sheep and one calf). Gerlock believes a possible explanation of Kraus and Beltrami erroneous deductions lies in the fact that their apparent normal sera had perhaps been obtained from cattle which had previously been latently infected with anthrax as Hutyra and Maninger have suggested. It is known that animals while at pasture on infected meadows may take up with the grass and drinking water large quantities of anthrax spores without manifesting any subsequent symptoms of illness. Such latent infections can nevertheless cause formation of anti bodies leading to a certain degree of immunity of the affected animals. It is moreover possible that in badly infected regions such as Argentina, the above phenomena may occur not infrequently. We are then evidently to conclude that the excellent practical results obtained by Kraus and his collaborators may have been due to the use of a somewhat immune serum.

Hence from the experimental proof normal serum is not equivalent to immune serum, and

must not yet be considered as equal to the latter in the treatment of the disease in man.

ANTI-ANTHRAX SERUM

Originally produced by Marchoux¹⁶ of France and Sclavo¹⁶ of Italy in 1895, by the immunization of sheep, at first with attenuated cultures, then by hyperimmunization with virulent cultures in increasing doses, until a serum was obtained which they showed to be possessed of both protective and curative properties in experimental animals.

Sobenheim¹⁷ subsequently further modified the original method of immunization by employing simultaneous inoculations of anti anthrax serum and culture. In 1915 Eichhorn¹⁸ of the U. S. Bureau of Animal Industry, again modified the immunization of animals by employing also simultaneously inoculations of carefully standardized spore vaccine and anthrax serum, and obtained in this way a serum which he found to be twice as potent as the European preparations. This is the serum that has been utilized in this country for the last few years.

The statistical data on the immune serum treatment of anthrax is most certainly a convincing argument in favor of the value of the treatment. These statistics¹⁰ have previously been given in part. To summarize the results obtained as indicated by these reports, it may be said the relatively few failures that have occurred could almost always be traced to: (1) Its use too late in the course of the disease, after a septicæmia had supervened or within twelve to twenty-four hours of death; (2) The employment of too small doses—20 to 30 cc.; (3) The failure to repeat the injections frequently—in many instances only one dose was given and that subcutaneously; (4) Its use in patients with chronic diseases—myocarditis, nephritis, syphilis, etc.

In many instances especially in this country and in England, serum therapy has been combined with some other method, and has not been relied on alone for the cure. It is the writer's contention¹⁰ that no other local method should be used in conjunction with serum. The objectionable features of the usual methods of local treatment have been briefly commented on. Either they are too palliative and exert their action too superficially to be at all effective—such for example as wet dressings, poultices, etc., or they are so radical as to entail the possible supervention of further local involvement or a septicæmia.

In order to obtain a method of local treatment which did not have the disadvantages of those in use, yet would be locally effective, and an additional precaution against the development of an anthrax septicæmia, at the Kingston Avenue Hospital, I¹⁹ have devised the local injection of anti-anthrax serum. For giving these injections a small Luer Syringe, 2 to 5 cc. capacity, with a

fine needle is used. The needle is inserted into the indurated border of the pustule, and is directed fairly deeply (from 2.5 to 3.5 cms.) into the subcutaneous tissue at the base of the lesion. A maximum of 10 to 12 cc. of serum is then given, the needle being inserted at two or three points, and the serum injected so as to circumscribe the pustule. The amount of serum given, however, may have to be varied with the size of the pustule, from as low as 5 cc. to a maximum of 12 cc. The site of the injection is, of course, previously iodinated and the operation carried out with a carefully aseptic technique. The injections are used once or twice in twenty-four hours in mild or moderate cases, while in severe voluminous lesions, they may be given more often, every six to eight hours.

Following the first one or two local treatments there is a slight increase of the inflammation, but within two or three days, the lesion has as a rule, taken a decided turn for the better, and rapidly dries up, the induration and the soft edema subsiding, the eschar being the only remains of the pustule usually left after one week. The eschar spontaneously separates during the second or third week of treatment and the wound that remains quickly heals with practically no scarring. Occasionally a slight pyogenic infection of the wound sets in, but this is purely local, and clears up with wet dressing and appropriate superficial drainage.

To the writer it seems that the local injections of serum is logical, in so much as it is then supplied in a concentrated form at the site of the infection. From a theoretical standpoint, the basis for the use of serum in this manner is dependent on two factors: (1) The local injection insures that the lymph secretion in the region of the pustule contains a high antibody content—a most important factor in a massive type of inflammation such as that seen in anthrax in which a diluted and modified lymph secretion probably exists; (2) The type of the local inflammatory reaction is a peculiar one. The serous discharge from the pustule is characteristically poor in leucocytes and the microscopic sections of the lesion have shown a strong tendency for segregation of the bacilli in the center of the pustule with the leucocytes distributed as a dense infiltration around the margins of the lesion and in the subadjacent cellular tissues. Probably it is a question of negative chemotaxis which exists in the early stages of the infection, and throughout the disease in most severe and fatal cases. Since the serum has a marked effect in facilitating phagocytosis according to certain experimental work, it is logical to supply it concentrated at the site of the infection.

In administering serum, it must be remembered that the local injection is to be supplemented by the general administration by the subcutaneous,

intravenous or intramuscular route—of the specific agent.

As to the dosage of anti anthrax serum, the route of administration and the frequency of injection, Dr. Eichhorn²⁰ and the writer feel that the severity of the case should be the deciding factor. In all instances a blood culture should be taken as soon as the patient comes under observation and thereafter whenever symptoms arise which are in the least suggestive of a possible septicæmia.

Briefly it may be said that in mild non-septicæmic cases the dosage averages 40 to 50 cc. every twelve to twenty-four hours, the first few injections intravenous, the later intramuscular and subcutaneous; in moderate cases, 50 to 100 cc. intravenously at first for three or four injections every eight to twelve hours, then intramuscular and subcutaneously in smaller doses. In severe cases, 80 to 120 cc. (or even 200 cc.—Eichhorn) intravenously every six to eight hours for five or six more injections, until the disease is controlled when the intramuscular and subcutaneous routes may be used. In septicæmia cases, the dosage must be very high, from 150 to 250 cc. (or even 300 cc.—Eichhorn) every three to six hours intravenously.

During the first few days of treatment when serum is being given mainly by the intravenous route, it is well to supplement it by subcutaneous injections. Severe serum reactions are altogether exceptional in our experience, chills are encountered not infrequently, but they are not severe and when they occur are usually followed by profuse perspiration—a very good prognostic sign. Serum rashes several days after injection are fairly common, and are the usual multiform erythematous type with urticarial lesions. In two instances we have seen also arthritic symptoms which were prolonged for several days in one patient.

It is advisable to test the patient out for sensitization by a cutaneous test before the serum is given, and if a reaction is obtained to desensitize before the injection is made. The serum may be diluted equally with normal saline if desired. The first few cu. cms. should be allowed to enter the vein very slowly and should better be diluted well with several times its bulk of normal saline, the remaining portion of the serum then being given undiluted but slowly. The serum should be administered of course with sterile precautions, and be at or about body temperature.

At the Kingston Avenue Hospital during the last three years, we have treated twelve cases of anthrax by the local and general administration of anthrax serum alone. In the last two cases the disease was septicæmic and had been apparently for some time when the patients entered the hospital. Both these patients died, one within twelve hours and the other within thirty-six

hours of the time of entrance, treatment being too late to be of any avail. The remaining ten consecutive patients all recovered, although in nine instances the lesion was located on the face or neck. In these patients the acute inflammation subsided from the 2nd to the 6th day of treatment, the eschar spontaneously separated from the 12th to the 21st day, the wound healed from the 20th to the 32nd day, and the patients were well enough to be up and around from the 7th to the 12th day. No deformity resulted in any instance, no serious complication or sequelle ensued, and the scar that remained after healing was complete, was so minute as to pass unnoticed.

Dr. Douglas Symmers,²¹ of the Pathological Laboratories at Bellevue Hospital has been one of the most earnest advocates for the serum treatment of cutaneous anthrax. He has adopted the local and general serum therapy of the disease at Bellevue Hospital, the previous method of combined excision and serum treatment having been abandoned. He has reported very satisfactory results in a considerable number of cases so treated.

Hubbard and Jacobson⁸ have recently summarized the treatment of 34 cases of anthrax occurring in New York City in 1919 and 1920.

Their table is as follows:

	Cases	Rec.	Deaths
Anti Anthrax Serum only	14	12	2
Anti Anthrax Serum and Incision	5	4	1
Anti Anthrax Serum and Excision	4	3	1
Anti Anthrax Serum and Chemical Cautery	2	0	2
Chemical Cautery and Incision	2	1	1
Anti Anthrax Serum, Excision and Chemical Applications	1	1	0
Chemical Applications	1	1	0
Chemical Applications and Yeast	1	1	0
No Treatment Recorded	4	0	4

These authors comment thus on the therapy: "As fourteen cases recovered without operation, and nine with operation it would be logical to judge from the observed cases that it was best not to operate. Again out of fourteen that received only anti anthrax serum, two died. Out of the twelve that received serum aided by other treatment four died. The method which seems most successful is that of administering anti anthrax serum, 10 cc. by local infiltration every eight hours and 40 cc. intravenously every four hours."

Graham²² in a practical clinical description of the disease, has also recently commented on the change in the mortality rate in reported cases²³ of anthrax in N. Y. City in the past few years:

Year	Cases	Deaths
1915	13	9
1916	4	3
1917	16	9
1918	15	4
1919	14	9
1920 (first six months).....	12	1

During the years 1915, 1916 and 1917, serum was very little if at all used. During the following years it began to be more employed, but was combined usually with other methods, mostly excision. Finally in 1920 serum treatment locally and generally was fairly uniformly adopted and excision abandoned.

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IS THE PRESENT TREND IN NURSING EDUCATION GIVING US SATISFACTORY NURSES?*

By THEW WRIGHT, M.D.,
BUFFALO, N. Y.

HAVING for some years served on the Training School Committee of two hospitals, as well as having aided in the teaching in these schools, and having seen the rapidly increasing curriculum, the questions have arisen in my mind repeatedly, "Are not the so-called advances in nurse's training going too far, and are they real advances?"

The discussion of the profession of nursing is a many-sided and somewhat complex one. But it is one which vitally concerns the doctor and the laity. No one has a greater respect for the profession of nursing than I, nor a greater appreciation of the nobility of the profession, the spirit of self-sacrifice and devotion shown by many of its members, and the hardships and trials of its practice. I have no sympathy whatever with those who condemn nurses for having their associations and striving through organization to better their working conditions, either through the regulation of hours or remuneration. I do feel, however, that a free discussion of the tuition and training that we as a medical profession consider necessary for those who are to nurse our patients, is most timely.

I am, furthermore, not of the impression that the nurses graduated from our training schools in the past decade are any more competent at graduation to care for the sick than were those of the previous one. In fact, my impression is that they are rather less so. I feel that those who have been taking the most active interest in the control of training schools and nursing education have lost sight of the original and fundamental object of the nurse's calling, namely, the care of the sick, in their endeavor to educate her in many and various allied subjects which have little practical value in making her a more efficient nurse. That they are graduating an exceedingly poor imitation of an incompletely educated doctor rather than a highly efficient nurse of the sick. She has a smattering of knowledge regarding most of the subjects taught in the medical school and true to the maxim that "a little knowledge

* Read at the Annual Meeting of the Medical Society of the State of New York, at Albany, April 18, 1922.

is a dangerous thing," the average nurse on graduation today from one of our large hospitals feels she knows far more than the average interne, and often has no hesitancy in criticising, from her superior knowledge, the practitioner of many years' standing.

Let me take a few moments to cite to you some of the subjects now required in the training schools of New York State as necessary for the schools to be registered, so that their graduates may be eligible to become registered nurses.

GENERAL SCHEME OF THEORETICAL INSTRUCTION.
NEW YORK STATE.

First Year (Preparatory)

FIRST SEMESTER

	Hours
Anatomy and Physiology.....	48
Bacteriology	16
Personal Hygiene	8
Chemistry	16
Nutrition and Cookery	24
Drugs and Solutions	16
Hospital Housekeeping	8
Elementary Nursing (including Bandaging).....	64
Historical, Ethical and Social Basis of Nursing...	8

208—

about 12 hours weekly.

SECOND SEMESTER

	Hours
Elements of Pathology (including Urinalysis)....	8
Advanced Nursing (including Elementary Massage)	32
Materia Medica and Therapeutics.....	16
Diet and Disease	8
Ethics	8

72—

about 5 hours weekly.

Recommended Elements of Psychology..... 8

Second or Junior Year

FIRST SEMESTER

	Hours
Nursing in General Medical Diseases.....	16
Nursing in General Surgical Diseases.....	16
Nursing in Diseases of Children (including Orthopedics and Infant Feeding).....	16

48—

about 3 hours weekly.

Recommended Massage

8

SECOND SEMESTER

	Hours
Nursing in Communicable Diseases.....	8
Gynecological Nursing	8
Operating Room Technic	8
Obstetrical Nursing	16
Eye, Ear, Nose and Throat, Nursing in Diseases of	8

48—

about 3 hours weekly.

Recommended Hydrotherapy

8

Third or Senior Year

FIRST SEMESTER

	Hours
Nervous and Mental Diseases, Nursing in.....	16
Occupational, Skin and Venereal Diseases, Nursing in	8
Emergency Nursing and First Aid.....	8

32—

about 2 hours weekly.

Recommended Occupation Therapy—Special Therapeutics

16

SECOND SEMESTER

	Hours
Professional Problems	8

Electives from the following

Introduction to Public Health Nursing.....	8-16
Introduction to Private Nursing.....	8
Introduction to Institutional Work.....	8
Laboratory Technic	8
Recommended Modern Social Conditions.....	8
Recommended Public Sanitation	8

In the entire course of three years, eight hours are devoted to Introduction to Private Nursing, and that is an elective course.

GENERAL SCHEME OF THEORETICAL INSTRUCTION.
NATIONAL LEAGUE OF NURSING EDUCATION

Preparatory or First Year

FIRST OR WINTER TERM

	Hours
Anatomy and Physiology	60
Bacteriology	20
Personal Hygiene	10
Applied Chemistry	20
Nutrition and Cookery	40
Hospital Housekeeping	10
Drugs and Solutions	20
Elementary Nursing Principles and Methods.....	60
Bandaging	10
History of Nursing (including Social and Ethical Principles)	15

Total

265

SECOND OR SPRING TERM

	Hours
Elements of Pathology	10
Nursing in Medical Diseases	20
Nursing in Surgical Diseases.....	20
Materia Medica and Therapeutics.....	20
Diet in Disease	10
Elements of Psychology (Recommended).....	10

Total

80 to 90

Junior or Second Year

FIRST OR WINTER TERM

	Hours
Nursing in Communicable Diseases.....	20
Nursing in Diseases of Infants and Children (including Infant Feeding)	20
Massage	10
Principles of Ethics	10

Total

60

SECOND OR SPRING TERM

	Hours
Gynecological Nursing	10
Orthopedic Nursing	10
Operating-room Technic	10
Obstetrical Nursing	20
Nursing in Diseases of the Eye, Nose, Throat....	10

Total

60

Senior or Third Year

FIRST OR WINTER TERM

	Hours
Nursing in Mental and Nervous Diseases.....	20
Nursing in Occupational, Venereal and Skin Diseases	10
Special Therapeutics (including Occupation Therapy	10
Public Sanitation	10
Survey of the Nursing Field.....	10
Total	60

SECOND OR SPRING TERM

	Hours
Modern Social Conditions	10
Professional Problems	10
Emergency Nursing and First Aid.....	10
Introduction to Public Health Nursing and Social Service	10
*Introduction to Private Nursing.....	10
*Introduction to Laboratory Work.....	10
*Introduction to Institutional Work.....	10
*Housekeeping Problems of Industrial Families	10
*Special Disease Problems (Advanced work in any of the special forms of disease studies above)	10

* The subjects starred are elective, to be selected according to the student's future line of work. Each student would be expected to cover at least three of these studies to make up a total of 60 hours of work for the last term.

I have no objection to anyone, man, woman or child acquiring all the knowledge on all the subjects that he or she desires, and is able to assimilate, but is it necessary or even helpful in fitting her to care for the sick?

We are experiencing today great difficulty in getting nurses to care for our patients. The demand greatly exceeds the supply, and something must be done to meet it. The fact that those in charge of nursing education fail to appreciate this need is evidenced, I believe, by the remark of the superintendent of one of our large training schools. I said to her that I thought that we ought to be able to turn out nurses more efficiently trained to care for the needs of the patient, that we needed more expertly trained private-duty nurses. Her reply was, "Oh well, there is more to nursing than that, more than just taking care of sick people, I didn't study nursing with that end in view."

Now I maintain that it is just that thing in which we have such a shortage today. I maintain that our training schools are not turning out in sufficiently large numbers the type of nurse that the public and we as a profession need. I feel that something must be done to supply this need, namely, of nurses properly trained in the actual care of the sick, who can carry out our orders, and with sufficient knowledge of the common emergencies to recognize their occurrence and call us when we are needed. How are we to get them? How much time should it take under proper instruction to teach and train a girl of ordinary intelligence to fill such a position?

My requirements of a nurse for private duty

are that she know enough to carry out my orders, to make my patient comfortable, and to call on me or one of my assistants when anything unforeseen arises which requires treatment other than that outlined. I do not depend upon her for diagnosis nor for the initiation of any line of treatment or delicate explanation of symptoms. If she will record them so that I can do the interpreting she has gone as far as I ask. I do not call on her to differentiate between the pain of appendicitis and diaphragmatic pleurisy or renal colic. Enough for me that she record the advent of pain, and if severe, let me know of it without waiting until I call.

I realize that whatever the schooling, we can never eliminate the human equation, and accidents will occur, but to have an R. N. allow a patient to become nearly exsanguinated from secondary hemorrhage following an amputation for sepsis without realizing that anything was wrong till I discovered the patient lying in a pool of blood, to have another administer tincture of opium from a glass which had been left exposed till it was five times its proper strength, to have another narcotize a patient to unconsciousness, cyanosis, and respirations of four by hypodermics of morphia and yet another report that catheterization of a female patient showed the bladder empty when in reality it was distended almost to the point of rupture, makes one wonder if some of the theoretical and high-brow studies might not have been replaced by some more practical instruction with benefit to all concerned. Does the common protest, "Oh, don't say we must have a nurse; it's bad enough to have Henry sick, without having a nurse to wait on," indicate that the public is getting what it wants?

At present the demand for something between the uneducated woman who is more competent than the ordinary lay-woman only because she has seen a little more sickness, and the R. N., who in so many instances is such a refined product that her attitude is more like that of a retired duchess than a worker, is not being met. There is need for something between a bicycle and a Pierce-Arrow, and it may take a Henry Ford to give us the solution. I do not know that we can blame the curriculum for the fact the recent graduates seem to be more interested in their time off duty, and solicitous lest it be encroached upon, than in their work.

That is probably merely the spirit of the times. I would not appear as demanding excessive hours or too strenuous work, but when recently I had a serious and exacting case and yet had to persuade the nurse that she needed relief, it was a distinct shock, for it had been so long since she had such experience. How frequently did our cases need two nurses ten years ago? Today it is almost the rule if they really need a special nurse at all.

What I would like to see is a short course of twelve to eighteen months' intensive training in practical nursing, given by our hospitals of the highest standing, which would graduate a nurse fit for the actual practical care of the sick. Let such a nurse be what we and the public get when we call for a nurse. Let further periods of post-graduate training be afforded to those who do not desire private duty, but wish to fit themselves for other special lines of work, as, for example, operating room service, hospital ward management, training school superintendencies, public health, X-ray, laboratory work, etc. Let it be, however, post-graduate study as with the specialties in medicine. But let us have efficiently taught, practical nurses. In my opinion, any intelligent girl can be taught the proper nursing care of the sick in a year's time. If she hasn't learned it then, she never will. Of course, the more practice she has, the more efficient she will be, but if she is not prepared then, she would not be in three times that period.

I wish to make it perfectly clear that I am not advocating the production of a sub-nurse or trained attendant, but the production of a nurse thoroughly trained in the nursing of the individual patient, and not only as well but better trained and more expert in this than the present R. N. She would command equally as much respect from the medical profession and the laity as her colleagues who chose the other lines of endeavor, which seem at present to be more prominently in the minds of nursing educators. Through her intimate contact with the laity and her efficiency and helpfulness she would accomplish far more toward raising the standard of nursing and the public's opinion of the profession than any enlargement of the curriculum could do; and an expression such as I heard but yesterday, "A trained nurse, I had just as soon have a rattlesnake in my house," would no longer be merely the exaggerated expression of the public's attitude toward the profession to-day.

The public health nurse or executive would have no more justification in looking down upon her than would the laryngologist in scorning the psychiatrist, or the surgeon the internist. Each would be expert in their chosen line of endeavor, and who shall say that one is of greater worth than the other?

In my opinion, there is ample reason to challenge the wisdom of the recent enlargement of the scope of the nurse's duties, as seen in the Public Health and Welfare Work. It seems to me that the Red Cross and the Public Health Associations are assigning to nurses duties which are essentially those of physicians and for which their incomplete education fails to fit them. The title of a recent article in a lay journal, "Sub-nurses, why not sub-doctors," written by the head of the National Nursing Association, in

answer to one by Dr. Charles Mayo, I think unwittingly describes the graduate nurse as she would be if the curriculum advocated by the Association were carried out. They would be "Sub-doctors, par excellence."

Deaths

ADLER, WILLIAM, New York City; College of Physicians and Surgeons of New York, 1896; Fellow American Medical Association; Member State Society. Died February 26, 1923.

DROBINSKI, FRANCIS IGNATIUS, Brooklyn; Long Island College Hospital, 1906; Member State Society. Died February 9, 1923.

FALLER, GEORGE W., Oyster Bay; New York University, 1878; Fellow American Medical Association; Academy of Medicine; Member State Society; Physician Nassau Hospital. Died February 19, 1923.

LESZYNSKY, WILLIAM M., New York City; New York University, 1878; Fellow American Medical Association; Member State Society; New York Academy of Medicine; Consulting Neurologist Harlem Hospital; Neurologist Lebanon and Manhattan State Hospitals. Died March 3, 1923.

MEUER, SAMUEL H., New York City; Gross Medical College, 1896; Fellow American Medical Association; Member State Society; Physician Harlem Hospital. Died February 26, 1923.

SHANNON, WILLIAM, New York City; New York University, 1889; Fellow American Medical Association; Member State Society; Academy of Medicine; Pediatrician Misericordia Hospital. Died February 19, 1923.

STROUSE, ALFRED N., New York City; College of Physicians and Surgeons of New York, 1885; Fellow American Medical Association; American Academy of Ophthalmology and Oto-Laryngology; Academy of Medicine; Member State Society; Alumni Mount Sinai Hospital; Ophthalmological Surgeon City Hospital; Oculist and Aurist Orphan Asylum St. Vincent de Paul. Died February 12, 1923.

WEINDRUG, A. L., New York City; University and Bellevue Medical College, 1900; Member State Society; Attending Gynecologist People's Hospital. Died February 20, 1923.

WEINSTEIN, JOSEPH, New York City; University and Bellevue Medical College, 1899; Fellow American Medical Association; American Academy of Ophthalmology and Oto-Laryngology; Alumni Lebanon Hospital; Member State Society; Attending Laryngologist and Otolologist Sydenham, Beth David and Beth Israel Hospitals; Consulting Otolologist Community and Rockaway Beach Hospitals. Died February, 1923.

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A PROTEST.

Denunciatory choleric explosions destructive in effect of the progress or development of an honorable profession or association, are inexcusable, especially in a medical journal, and inevitably receive a punitive reaction.

The recent attack upon the nursing profession is undignified, unwise, unfair and unjustified, and has aroused a storm of protest that no apology can appease.

While we have, on occasion, met an unpleasant personality in a nurse's uniform, we are so full of gratitude, and of the warmest appreciation, of years of devoted, patient, skillful service, of actual physical sacrifice, by nurses, that we cannot permit such an attack to pass unnoticed.

A demand, in excess of competent supply, is undoubtedly responsible for the fact that the high cost of private nursing is a misfortune to the poor, but increasing hospital facilities will measurably take care of them, and hospital evolution will develop a class of people who will be able to give a competent, although less skillful, service to those who may be unable to pay for the services of those possessing more highly specialized attainments.

We have seldom known of an instance of overpaid professional service. Many a man is perfectly willing to pay seventy-five cents or a dollar an hour for the salvage of his inanimate automobile, who strenuously objects to spending sixty-six cents an hour for the services of a trained nurse who is trying to save the life of a member of his family.

We cannot too highly honor the splendid women who devote their lives to the idealism of the nursing profession.

N. B. V. E.

THE "NEWS BULLETIN."

The first number of the *News Bulletin* to be issued monthly by the Medical Society of the County of Westchester, appeared in February, edited by Dr. Henry T. Kelly. It proposes "to stimulate a greater interest in our Society," to develop "a more intimate social and professional contact between members, and the various activities of our membership should be a matter of extreme interest to the Society as a whole. In addition to our routine professional work there are many subjects which claim our attention, such as public health and legislative matters. As physicians we are under a moral obligation to the public to disseminate information and instruction which will enable our people to form an intelligent opinion upon these and related subjects. With your assistance, the *News Bulletin* will survey the field and direct your attention along these lines. We would therefore request the secretaries of the various medical societies throughout

the County to keep us informed as to what is going on in medical circles in their community."

This very interesting and well written paper is additional evidence of the growing demand among the members of the State Society for more frequent publication of all the more intimate matters affecting the social and material as well as the scientific welfare of all physicians.

Three County Societies have financed county publications because their members demanded them. We presume that these societies might possibly be willing to transfer their support to a new weekly State Journal if it published, in a satisfactory manner, the medical information they desire.

The problem seems to be entirely a financial one, surveys of figures obtainable indicate an annual expense of fifty thousand dollars or more to properly carry on a weekly Journal, not the smallest item being the five or ten thousand dollar salary of a competent full time editor, not an amateur like the present temporary incumbent. The limited circulation of ten or twelve thousand might be considerably increased if the Journal were deserving, and advertising which is largely dependent on circulation, would undoubtedly be increased. With all of this overhead, if the members of the State Society were willing to pay for such a paper, it would be worth the investment.

We were obliged during this year, because of limited funds, to decline to publish Dr. Bedell's beautifully illustrated prize essay—a remarkable work, of which any journal would have been proud, and which would have returned great credit to the State Society.

If five dollars should be added to the dues of the State Society, to provide a really great medical journal, would it not be worth while?

N. B. V. E.

INSANE PERISH IN HOSPITAL FIRE.

The shocking death of twenty-six patients and three attendants in the fire which occurred on February 18th in the Manhattan State Hospital for the Insane on Ward's Island, New York City, has sent a thrill of horror over the whole State. The tragedy has, as is usual, aroused in the breast of the average citizen a desire to punish somebody severely, or to pass a few more laws to prevent a repetition of such a sad event.

We are slow to praise, quick to blame; and so even staid metropolitan daily newspapers editorially say, quoting from one of them, "The responsibility may be distributed through many years of carelessness and neglect." This statement is unfair and untrue. Negligence or carelessness will not be shown by investigation, for neither has existed. The basic trouble is lack of sufficient money, and preference by the State legislature to appropriate available funds for other purposes, all desirable or necessary, while the

helpless wards of the Commonwealth are carried as cheaply as possible, although not unable, as many people suppose, to appreciate complete and proper care.

The overcrowding in the State Hospitals for the Insane is called "criminal," and it is insinuated that the Commissioners and the Superintendents are committing the crime. The overcrowding was not discovered by newspaper reporters or philanthropic visitors. It has, of course, been perfectly well appreciated by successive commissions for many years. But how can the officials prevent it? Two decades ago these hospitals were absolutely full. Yet during this time an average of about 6,000 new insane patients have been sent into them each year, and they must be received and housed somehow, somewhere. Erection of new buildings does not keep pace with accessions, because funds appropriated by the legislature are insufficient for that purpose. Hence beds have been put in day-rooms, sunrooms, recreation rooms, corridors, dark hallways, at heads of stair cases, in converted chapels, and in every place where possible, for the reception of the poor, timid, shrinking, confused, or disturbed or helpless insane.

At the end of every legislative session, the members adjourn, pack up and go home, having appropriated often millions of dollars more than the total available revenue of the State for the year. Then it becomes the Governor's duty to cut out of the appropriation bill, by veto, enough items to bring down the impossible total, and fit it to the actual financial resources, as estimated.

The State Hospital Commissioners are always obliged to submit to a large reduction in their budget. They are forced to let old buildings go yet another year, to postpone repairs, to abandon purchase of needed farm land, to omit furnishing nurses' homes, to crib and to scrimp in every possible way. This they do before taking their estimate to the Ways and Means Committee of the Assembly and to the Senate Finance Committee. After doing their best, they are directed to cut still more, to forego still further, and with the greatest reluctance they then omit really needed items, wondering how they can live without them.

Then the Governor slashes, under the tremendous pressure of his necessity, and generally additions or new buildings are "postponed for another year." The usual question is: "You got along last year, didn't you? Why can't you get along another year?"

Every physician who has had experience in living with the insane deplors housing the patients above the second floor of any dormitory. Yet since buildings of four stories were erected in 1850—another crime laid at the present Commissioners' door—and since attics present the only available outlet during crowding, we are

confronted with the necessity of utilizing every floor, and even of crowding the industrial workshops and occupational classes into the basements, in almost every instance.

The question easily arises in the reader's mind, "Why do not the Commissioners take a firm stand and demand all the insane patients need?" The answer is, they do. Very recently the lay Commissioner, who, with the Medical Commissioner, had the budget for their department in charge, took a firm stand and emphatically advised the legislative committeemen that he had cut down his demands to the lowest possible figures that his knowledge of the situation, his conscience and the pressing—nay, overwhelming—needs of the patients dictated; and that if any further reductions were made the committeemen must make them, and that he, the Commissioner, would let the taxpayers of the State know who did it. It is said he lost his temper. It is further said that the Committeemen lost theirs, and complained to the Governor. It is still further said that His Excellency lost his temper also, and demanded forthwith the resignation of this Commissioner of six years' unblemished record and experience, a faithful and devoted public servant, as not in harmony with the gubernatorial programme of economy. Then His Excellency cut out certain items.

This summarily removed official is presumably one of those guilty of "criminal neglect" and of "carelessness and neglect for many years," to quote again from the ill-judged newspaper editorial.

The physicians of the State, who send patients to these hospitals, should know the facts and should not tamely submit to the criticisms of writers who do not know whereof they write, and who cry aloud for vengeance.

The people of the State should know that to abandon the antique buildings on Ward's Island, including the "temporary" brick structures erected for housing immigrants during our Civil War, and necessarily used ever since, and to replace them with modern, adequate and ordinarily sanitary, slow-burning buildings, would cost over twenty-five millions of dollars. Will the taxpayers provide the money?

The calm persistence and efficiency of the overstrained staff physicians, and the loyalty and devotion of the underpaid nurses and attendants are pathetic. These qualities should stir us all to admiration and respect. We should remember that even with the meager night force and with the criticized little fire brigade, the flames were controlled with reasonable celerity, and that there would have been in all human probability no loss of life had not the twenty-six patients and the three attendants who met their death in the conflagration been cut off from the

only avenue of escape by the falling of the roof water tank.

The highest praise is due the cool, efficient, heroic force that saved the lives of all but twenty-six out of over 6,500 patients lodged in the entire group of buildings. A. W. F.

THE MODERN BASIS OF FAME.

Fame was formerly founded on valor, or achievement, or signal service. The soldier who devoted much effort to "seeking the bubble reputation, even in the cannon's mouth," if victorious, became famous. So, also, but regrettably less often, the bard whose sonnets and odes, whose epics and lyrics evidenced successful wooing of the heavenly muse, or triumphal flights on the back of Pegasus. The philosopher was renowned far beyond the little circle of his own disciples, and the sage leech of old was revered for generations.

Sed tempora mutantur. It is the material, the somatic, that counts today, not the spiritual, not the inspirational, not the genius of service to fellow man.

Not so long ago the first page of most of the important daily newspapers chronicled the death of a hotel proprietor who was very successful in developing and managing (on an assured salary) a prominent hostelry in New York city. True, he was an efficient trustee of a prominent college, as were many others on the board. Some physicians deplore the fact that he first opened the general dining rooms to indiscriminate smoking, theretofore confined, very properly, to the café—a bad example promptly followed by other hotels—and the further fact that he initiated opening charge accounts for the young bloods of the city who secured their matutinal "eye-openers" at his bar. Admiration was lavished upon him, and he was accounted famous at his death.

A great opera singer, justly celebrated as the most celebrated vocalist of our times, fell fatally ill. His daily condition was heralded, exemplified and elaborated in columns at a time in the daily press. In extended paragraphs were noted the visit and devotion of a son, whose mother sufficed to recount the daily occurrences of his illness, and later of his demise. He had diverted and entertained us, he had ministered in the greatest degree to our finest artistic senses, both musical and histrionic. Was he refined, learned, cultured? Was his a life of real service to mankind? Was his a case of *vox et praeterea nihil*? He was one of the most famous men of the generation.

Within a month there died in Munich Dr. Wilhelm Konrad Roentgen, whose illness passed unnoticed and whose death commanded scarcely a

single column's space in the daily newspaper, with a compact, brief account of his life. Yet this man made the greatest discovery in science in our generation.

Graduated in medicine at the University of Zurich in 1869, he later became professor successively at Hohenheim, Strassburg, Giessen, Munich and Wuerzburg. And it was while at the last named city that he reported, in November, 1895, the discovery of the X-rays, in an epochal paper before the Physio-medical Society of Wuerzburg. He had previously published valuable papers on the properties of crystals, specific heat of gases, electrostriction, piezo electricity, various other electric and magnetic phenomena, and telephony.

The incalculable value and the wide application of the Roentgen Rays are well known by every man in the street. Volumes would be necessary, were their uses to be chronicled and explained. The Count Rumford gold medal of the Royal Society of London was awarded to him, then the highest award of honor possible to a scientist.

But a commercial age is too busy and too much interested otherwise to accord him fame. Valuable space cannot be spared to him in the columns of the daily papers. It is needed for details of stock transactions, of political manoeuvres, of heresy hunting, of current divorces, of fascinating murders; for of such is the kingdom of fame today.

A. W. F.

THE MIRACULOUS ABRAMS OUTDONE.

A new journal, *The Pathometric Digest*, has flashed across the pseudo-medical firmament heralding the birth of a new jazz cult, which depends upon the "Pathometric determination of disease," as stated by "J. W. Wigelsworth, D. N., founder and dean of the Pathometric Laboratories, Inc." We are reasonably familiar with the "oscilloclast" of Abrams, as far as can be obtained from the little attention busy people can give these freak catch-penny devices.

This "Wigelsworth, D. N.," sees Abrams and goes him one better. He says: "We may differ with Dr. Abrams on a few minor points. We question the wisdom of the publicity campaign into which he has been drawn. We believe that he has been guilty of extravagant claims . . . that he does not exercise the care in their (his graduates') training that he ought." Abrams leases the "oscilloclast" to divers and sundry people; Wigelsworth leases the "Pathoclast."

Abrams diagnoses from a dry drop of blood; Wigelsworth makes an examination "from saliva or other body secretions." He adds, "Better still, we can trap some of the patient's energy in one of our specially prepared vials which will hold it for several days or until we have leisure to

make the examination." He states that he accomplishes the trapping thus: "This little device, which we call the Pathoinductor, has a vial placed in it. . . . The fluid which you see in the bottle is one which I have discovered will absorb the disease emanation and store it for several days."

Wigelsworth also, following Abrams, applies his "pathometer" to the head of the victim, but does not find it necessary to "demagnetize" after a "determination"; he says: "The reflexes elicited by the Pathometer take place within a second or two, and are dissipated the instant the energy conductor is removed from the head of the subject."

Explaining to "Dr. S.," Wigelsworth reports that he said: "When we charge a vial in the Pathoinductor we can place it in the same position in the treatment chair that the patient usually takes. After giving the vial a treatment, we can demonstrate that it is no longer possible to elicit a reflex with the energy drawn from it."

"Dr. S." is quoted as saying: "Well, I'll be damned!" We cordially join "Dr. S." in this ejaculation.

A. W. F.

THE N. Y. ACADEMY OF MEDICINE DRIVE.

About ten years ago the Fellows of the New York Academy of Medicine foresaw a swiftly coming epoch in which the institution would outgrow all its facilities. That point has been reached. Relief was obtained at the time mentioned, after weighing the desirabilities of selling and building elsewhere, rebuilding in part on the old site, and acquiring new contiguous space. After full and deliberate discussion it was decided to purchase the adjoining building on the east and thus provide a temporary outlet, certain that the property would increase in value. This certainty was well based, and today there exists a comfortable equity in the whole property.

But the building is in every respect inadequate—reading rooms, assembly hall, library stacks, committee rooms and offices. It is imperative that this great educational medical center with the increasing demands of a professional and of a public nature made upon it shall be housed in a new building with room for still further developments for scientific purposes and for its traditional service.

Application by the trustees of the Academy met with a munificent response from the Carnegie Corporation and the Rockefeller Foundation; the former institution agreeing to erect a new building, to cost approximately a million dollars, if the Academy furnishes a site; and the Rockefeller Foundation agreeing to contribute an endowment sufficient to take care of the increased needs of the library, and to permit of enlarged educational activity.

Private philanthropy, as was the gratefully

acknowledged condition thirty years ago, had added to our possibilities, and now an appeal is made to all members of the Academy to raise \$250,000 by May 1st, 1923.

Especial appeal is made to the 1,400 members who have not yet helped in Academy extension, as well as to those who gave ten years ago.

Parallel with our opportunity to take part in this work lies our duty to the cause. Privilege and obligation go hand in hand. And it certainly will be a welcome opportunity to acknowledge substantially that we have been getting for years out of the library facilities alone manyfold more than our dues have represented. Let us all then give freely and give quickly. The committee suggests two hundred dollars as a minimum for each Fellow.

A. W. F.

Correspondence

The Council, at a meeting held in Albany, April 20, 1922, moved, seconded and carried:

That the Journal be not used in any way suppress any expression of opinion; and that its correspondence columns be open for all proper communications; and that "proper" communications will be deemed those which are not slanderous or libelous in their nature.

New York City, January 29, 1923.

Editor, NEW YORK STATE JOURNAL OF MEDICINE:

In the JOURNAL of January, Dr. George E. Barnes inquires on what authority does A. W. F., of your editorial staff, consider alcohol a desirable medicine. Professor Rudolf Witthause told his medical students that, when they are asked in court when giving evidence on the stand in a legal case of medicine, on whose authority they base their opinion, the answer should be on my own.

The scientific medical practitioner is the sole judge what is best for his patient. I know that whiskey or brandy in the majority of influenza cases in my practice was best for my patients, Dr. Barnes to the contrary. His argument, why not substitute other medications in place of alcohol can be answered, why not substitute alcohol for other medications? Dr. Barnes knows or ought to know that we have a great many pharmaceutical preparations having the same therapeutic effects on the human constitution. Why not select one that suits Dr. Barnes and discard all the others? What necessity is there to have a pharmacopoea? It seems Dr. Barnes treats diseases, not patients. I treat my patients, every case must be treated individually. What suits one will not agree with another. There are idiosyncrasies among different people. What may be a therapeutic dose to one may be poisonous to another one.

The doctor says: "Tradition is the only thing that allows alcoholics to be retained today by anyone either as medicines or as beverages." In other words, the whole world from time immemorial is living on tradition with the exception of the prohibitionists. The German militarism before the world war was known for its "*Es ist verboten.*" Dr. Murray Butler, President of Columbia University, declared a few days ago in a public speech, that our free country can show "*ten verbotens*" to one of Germany's "*verbotens.*"

Dr. Barnes gives warning: "Will the medical profession and the people allow antiquated tradition to stand today in place of enlightened science when the health and welfare of the American people and nation are involved?"

This is a stock argument of all the anti-scientific healers, who are claiming that the medical sciences are

antiquated, and that they have discovered an *enlightened science*, such as osteopathy, chiropractic, Christian Science, Jewish Science, bone setters, birth control, Couéism, and last but not least, *new thought healing*. They are all doing it to eliminate the antiquated traditional medical man. They all claim they are doing it for the health and welfare of the American people! I spoke once before a body of medical men and lawyers, showing the fraud perpetrated on the public by the chiropractors. A prominent lawyer said to me: You do not know the science of chiropractic, you medical men are feeding the people with poisonous drugs. My answer was: I admit I do not know the science of chiropractic because it is a pseudo-science, and as far as physicians giving their patients poisonous drugs is concerned they give drugs for their therapeutic value, and when it has its desired effect upon the patient, instead of being a poison, it is an antidote against the poison that is producing the disease. You may call it antiquated, but a scientific fact was a fact in antiquity, and remains a fact as long as it proves its scientific value. I do not know whether there are Christian Scientists in Herkimer, but I do know there are thousands of them in New York City, and their business is so prosperous that competition sprang up lately under the name of Jewish Science healing. An agitation is also going on among the clergy of other churches to take up the healing art, and all of them are doing it "for the promotion of science (?) and health and happiness, as the Prohibitionists are telling the medical practitioners what is good for their patients, for their health and their happiness."

I fully agree with W. L. Wallace in his diagnosis why the chiropractic Pseudo-Science is successful, that it is the fault in some respect of our medical leaders for not insisting upon the authorities enforcing rigidly the medical act law, to protect the health and happiness of our people.

There are no illegal practitioners among lawyers because the law is strictly enforced. There are no unlicensed plumbers in the plumbing line, because they are watched by inspectors of the tenement house department. Unlicensed dogs are not allowed to run the streets, because the dog catchers are after them. The human constitution, this fine, complicated organism of whom the immortal Shakespeare put in the mouth of Hamlet: "What a piece of work is man! How noble in reason! How infinite in faculties! In form and moving, how expressive and admirable! In action, how like an angel! In apprehension, how like a god! The beauty of the world, the paragon of animals!" And this fine machinery, the pride of the Creator, is left to the tender mercies of the ignorant charlatans. And yet there are men in our midst who are giving aid and comfort to the enemies of scientific medicine. Think of the indignities heaped upon the honor and honesty of the medical practitioner. The health, the life of the citizen is given in the doctor's hand. The honor of the wives and daughters is entrusted in our keeping, yet the physician is not trusted with the use of the drug alcohol!

Yours for the promotion of *true science*, health and happiness to the sick, instead of the healers,

L. W. ZWISOHN, M.D.

Herkimer, N. Y.,
February 22, 1923.

Editor, NEW YORK STATE JOURNAL OF MEDICINE:

I have just read in the current issue of the JOURNAL the letter of Dr. Albert W. Ferris, written in reply to my letter of last month, in which I requested Dr. Ferris to set forth the ideas on which he bases his opinion that alcohol is a valuable and needed drug and that its use as such should not be restricted by the Volstead law. That he did not present these ideas in his original communication in the December number

is not surprising, and I did not criticize him for not doing so, but I did call upon him to offer his ideas on the point at issue, and he has not acceded in his letter of this month. It should be self-evident that a consideration of the unconstitutionality of the Volstead act to control the use of alcoholics as medicines is appropriate only when there is behind the whole matter at least a belief that alcoholics are valuable, needed drugs. Before going into the discussion of the action of alcohol and its use as a medicine and food, from my own standpoint, it is, indeed, very proper that Dr. Ferris should first present to us his views on the matter. I favored him in my letter with some questions which indicate my opinion, and which will be a definite guide to him in presenting at least some of his basic ideas.

As implied by the questions in my letter, I hold that any doctor who is properly informed on materia medica will never wish to resort to the use of alcoholics as medicines, and I hold that anyone who is informed on the deleterious effect of alcohol on the human mind and body and who is aware of the manifest connection of alcohol with poverty and crime, inefficiency and disease, should *wish* to have the poison withheld from the interior of the human body, absolutely, throughout the world. All things being as they are, I hold that it is the privilege and duty of every doctor in the United States, not only to practice and advise obedience to the Volstead law and the eighteenth amendment, but also to do his part toward consigning all beverage alcoholics to innocuous desuetude.

Alcoholic beverages have been prescribed with scarcely any thought of the scientific questions involved. Indeed, they have to a considerable extent been used as convenient panaceas. Bleeding likewise enjoyed a long vogue based on belief. Patients with fever used to be starved. If we are to build up a scientific practice of medicine, and that is exactly what is being done, definiteness in all matters must be the watchword, in place, so far as possible, of imagination, belief and empiricism.

With kind feelings toward Dr. Ferris and all others who are interested in benefiting mankind, I am,

Very sincerely yours,

GEORGE E. BARNES.

New York, January 29, 1923.

Editor, NEW YORK STATE JOURNAL OF MEDICINE:

DEAR SIR: I see, according to the *Journal of the American Medical Association*, that it is alleged that the New York State Medical Society is alleged to be favoring a bill for compulsory annual registration of physicians. I am writing to you to find out if it is true, and, if so, wish to enter my humble protest against such a bill.

If the proponents of annual registration were sincere in their object—to eliminate the quack—all that would be necessary is for the unofficial registration, now being made for the annual directory, to be made official, and a check be made on physicians by means of their signatures. However, when the proponents wish to have a physician's license terminate at the end of each calendar year, it is difficult to see what will be gained and easy to see what will be lost. The practice of medicine will no longer be a right, achieved after much hard earned effort, but will be a privilege, revocable at the whim of a political bureaucracy, who will be

entrusted with a dangerous amount of power. A legislature capable of Sweet rulings and Lusk laws cannot safely be entrusted with the fate of a learned profession. We have already witnessed Congress acting as a super M.D., and making rulings regarding the administration of alcoholic drugs. We cannot afford to have the right to earn our livelihood depend upon whatever political boss happens to be in power. Aside from creating some new political jobs, it is difficult to see what the proposed legislation will accomplish, and the official having charge of our licenses will be given more power than either the Czar or the Kaiser had in their palmy days.

Please reconsider the proposed legislation before it is too late. Meanwhile, why not drive out the chiropractors, who have no recognized diplomas nor any right at all to practice their so-called profession? That should be easier and of more practical value than to impose new burdensome restrictions upon an already overburdened profession.

Very truly yours,

LUCIUS F. HERZ, Ph.B., M.D.

Editor, NEW YORK STATE JOURNAL OF MEDICINE:

DEAR DOCTOR: The flood of vituperative publicity aimed at the nursing profession by a professedly medical journal (*The Medical Review of Reviews*) is in danger of reaching a vital spot in our community life. It will not greatly influence nurses already practicing. Those who are giving devoted service will continue to do so; the average nurse will remain average, and the poor nurses, and we frankly though regretfully acknowledge that a few such exist, will go on as before.

New York hospitals, and those all over the country, are very dependent upon a constant in-flowing stream of student nurses to give care to their patients. Communities are expressing an ever growing demand for the out-flowing stream of graduates of the schools for nurses connected with the hospitals.

What parent reading, and influenced by, articles villifying nurses will willingly permit his daughter to enter a school for nurses? Nursing is not confined to bathing patients and taking temperatures. Many a life has been saved by a nurse who was prepared to act in an emergency. Thousands of families are happier because they have adopted the health teaching of nurses.

The efforts of nurses to maintain reasonable educational standards are based on first hand and often painful knowledge of what the public demands of the graduate nurse. Their efforts to secure legislation are animated by sincere belief in the importance of distinctive labels for various types of persons who care for the sick for hire in order that the public may know what it is getting.

Twenty thousand of the 35,000 nurses who belonged to the American Nurses' Association when the war broke out volunteered and saw active service. We are not greatly concerned about the attacks on a profession with such a record for service. We are deeply concerned about the effect upon prospective or potential nurses, of the vicious propaganda referred to.

AGNES G. DEANS, *Secretary*,
American Nurses' Association.

EFFIE J. TAYLOR, *Executive Secretary*,
National League of Nursing Education.

ANNE STEVENS, *Director*,
National Organization for Public Health Nursing.

A letter to Dr. E. MacD. Stanton, Member of the Joint Committee for the Study of Rural Health Conditions and Organization in New York State.

WHY SOME COMMUNITIES HAVE NO DOCTOR

January 30, 1923.

MY DEAR DR. STANTON: Your letter received today relative to X as a place for a physician to practice in. Now, I went to X from the — Hospital in — after I had interned there for a year under Dr. —, having been petitioned to come and practice there by over fifty of the X residents. I was there for eleven months, and, of course, know a little of the conditions.

Now, the territory for a Doctor to cover in X is fairly limited. On the South, Dr. — of — takes care of the practice to within five miles of X; on the West, —, with twelve physicians, is only seven miles away, and Drs. — and — perhaps come in mostly. X is six miles from the —, where Dr. — of — and a Doctor from — come in. The — is but five miles away, where Drs. — and — run in. Thus, with X with only a few hundred inhabitants and the surrounding territory of five or six miles radius, a Doctor at X must cover the whole territory or starve. The Doctors coming in from the surrounding towns naturally cut in quite a bit, and unless the X Doctor gets all the practice in his territory he might better go elsewhere. It would not be too bad a field for a young Doctor were he to be left alone to care for the needs of the town of X.

The people of X are a peculiar type. They "choose sides" and scrap all the time, no matter what be the issue—politics, the Doctor, and what not. There are a great many people there who will have an out-of-town Doctor at any expense, regardless of how good a man they have at home, and they will go around and brag about it, as well as telling the home Doctor to his face. Then if an emergency arises they will call their home Doctor, and the next day when he goes to call on his patient an out-of-town Doctor will be there ahead of him. They seem to have no knowledge of medical ethics and do not look forward to the future a bit. I had that trick played on me several times. The out-of-town Doctors won't come in the night, nor in storms, so they are forced to call their home Doctor; but the next day they will have an out-of-town Doctor there ahead of their home Doctor without a word said to their home Doctor about it until he arrives, and then they will expect him to drive five or six miles for nothing. The X people will complain equally as much if they have one. They remind one of the Irish and the Mexicans—never satisfied and always ready for a scrap. They have always been this way and always will be. They just won't support a Doctor that is given them, no matter how competent or accommodating he is. The telephone service is bad, in that the farmers own the rural lines and won't hire anyone to repair them when necessary, but will complain to central or put the blame on someone else if at all possible.

The State road leading through X Center from — to — is a great factor in aiding — and — Physicians coming into X, as it leads through about the center of X township. The rural roads are terrible. I wore out a Ford coupé there in less than a year. The X people prefer to complain rather than to fix up the roads. The County road constructed through X village from — to — is in very poor condition; they won't put an asphalt top on the road, but make just a

plain macadam road, which wears out in less than six months. Even the mail carriers use a horse and buggy in the summer to deliver mail because of the poor roads and expense of keeping up a car to traverse these roads.

The Doctors attending people in X at the present are Drs. — and — of — and Drs. — and — of —.

I don't believe I should put myself out a great deal to serve the community there, for it wouldn't be appreciated. A person has to know the people by living with them to appreciate the circumstances in that town. They will pull some of the meanest little tricks on a Doctor imaginable; even go to — to a relative's home while attacked with the grippe, so that they can have a — Doctor take care of them, and think they can get away with it without anyone knowing about it—as if their home Doctor could not take care of them.

WOMEN'S MEDICAL SOCIETY OF NEW YORK

The Women's Medical Society of New York State will hold its annual meeting at 9:30 a. m., May 21, 1923, in New York City.

All medical women, members, non-members, and their friends, are cordially invited to attend both the scientific session and the banquet.

The scientific session will be composed of a symposium on "Eye Diseases in Relation to General Medicine," Dr. Clara A. March, first paper—others to be announced later.

"Feeble Mindedness in Relation to Prostitution." Dr. Alberta Greene.

"Early Symptoms of Carcinoma of the Cervix." Dr. Elise L'Esperance.

"Observations Concerning Gastric Disturbances," Dr. Rose R. Donk.

The dinner promises to be of more than usual interest, with special music and toasts. If possible, make reservations for the dinner before Saturday, May 19, by sending check of \$4 to Dr. Ethel D. Brown, 26 Gramercy Park, New York City.

The headquarters will be at the Hotel McAlpin, Broadway and 34th Street. If reservations are desired, they should be made early.

HARRIET M. DOANE, M.D., *President*,
MARY DUNNING ROSE, M.D., *Secretary*.

AMERICAN CONGRESS ON INTERNAL MEDICINE

The Seventh Annual Clinical Session of the American Congress on Internal Medicine will be held in the amphitheatres, wards and laboratories of the various institutions concerned with medical teaching, at Philadelphia, Pa., beginning Monday, April 2, 1923.

Practitioners and laboratory workers interested in the progress of scientific, clinical and research medicine are invited to take advantage of the opportunities afforded by this session.

Address inquiries to the Secretary-General.

FRANK SMITHIES.

1002 North Dearborn Street,
Chicago, Ill.

NOTES FROM THE STATE DEPT. OF HEALTH.

MORTALITY RATES IN 1922.

Provisional compilation of the birth, death and infant mortality rates for the State of New York and for the various cities, counties and villages for the year 1922 have been completed by the Division of Vital Statistics. The death rate for the entire state last year was slightly higher than the year before, being exactly 13, as compared with 12.3 in 1921. The birth rate was 21.6, as compared with 22.8 in 1921. The infant mortality rate for 1922 was 77 deaths for every thousand children born alive, as compared with 75 in 1921. New York City exhibited a higher birth rate and a lower death rate than the rest of the State, and the infant mortality rate in the metropolis was 75, as against 81 in the remainder of the State. The cities of the State taken together also exhibited a higher birth rate and a lower death rate than the rural areas, but the infant mortality rate in the cities was 85, as compared with 73 in the combined rural districts. Among the cities of the State the lowest death rates were those of Lackawanna, 8.8; New Rochelle, 9.5, Tonawanda, 9.0, and Sherrill, 9.7. The highest death rates were those of Ogdensburg, 31.8, Canandaigua, 21.6; Plattsburg, 21.3, and Saratoga Springs, 20.1. The communities exhibiting the lowest infant mortality rates were Canandaigua, New Rochelle, Saratoga Springs, Ossining, White Plains and Glens Falls, while the highest infant mortality was found in Ogdensburg, Mechanicsville, Lackawanna, Troy, Salamanca, Rensselaer, North Tonawanda and Buffalo.

REPORTING COMMUNICABLE DISEASES TO COUNTY HEALTH OFFICERS.

Under an amendment to the Public Health Law adopted by the Legislature in 1921, the Board of Supervisors of any county, with the approval of the State Commissioner of Health, has power to establish such county or any part thereof as a general health district. The first county to take advantage of this law is Cattaraugus County, where in connection with its selection as the area for one of the public health demonstrations of the Milbank Fund a general health district has been established by the Board of Supervisors, including the entire county. To meet the needs in this and other similar districts which may be established from time to time the Public Health Council has amended the State Sanitary Code to provide that in any general health district the local health officers shall report cases of communicable disease to the general district officer instead of directly to the State Commissioner of Health, and such general district officer shall report the cases immediately to the State Commissioner of Health by telephone or telegram. In like manner the new regulations require local health officers to report to the general district health officer the failure of physicians to report communicable diseases, and the general district health officer is required to inform the physician of such failure and to report such fact to the State Department of Health. In general health districts, local health officers will hereafter be required to submit their monthly reports to the general district health officer, who in turn will forward them to the State Commissioner of Health.

FATALITY FROM PUERPERAL CAUSES ACCORDING TO AGE OF MOTHERS.

One of several statistical investigations recently made by the Department in connection with the current interest in the reduction of maternal and infant mortality was based upon the deaths from maternal causes from among 108,539 mothers who gave birth to 109,722 children (including stillborn) during the year 1921 in New York State outside of New York City. These

deaths were tabulated by the Division of Vital Statistics according to five-year age groups of the mothers from 15 to 50 years, and the rates deduced represent the actual death risk undergone by the mothers in each age group from causes connected with childbirth. It appeared from this study that the fatality from septicemia is subject to only small variations, while that from other puerperal causes progressively increases for each age from 15 to 50 years. Although the rate from septicemia shows a slight tendency to increase from 20 to 45 years, it also exhibits a tendency to form a peak at the ages 15 to 19 and 40 to 44. This suggests the question whether or not this tendency is due to the greater prevalence of criminal abortion among women of those ages. The stillbirth rate shows an increase from the age of 15 to the age of 50 progressing from 3.28 per cent to 8.14 per cent. Comparable data for the year 1920 subsequently assembled practically duplicate the outstanding features and tendencies of the data for the year 1921. A supplementary study is being made analyzing the mortality of the mothers at each age and according to conjugal condition.

DR. SEARS TO SERVE ON ADVISORY COMMITTEE FOR TRAINING OF SANITARIANS.

Dr. F. W. Sears, of Syracuse, Sanitary Supervisor of the State Department of Health, has been appointed a member of the Advisory Committee which was constituted at the close of the Conference on the Education of Sanitarians and the Future of Public Health in the United States held last March in Washington. Dr. Sears will give an address at the next meeting of the Conference in Chicago on March 7th on the subject of "The Education of the Partially Trained Sanitarian now Employed."

COMPLEMENT FIXATION TEST FOR SYPHILIS.

The Division of Laboratories and Research has issued special instructions relative to the use of the outfits designed for submitting to the State Laboratory specimens for the complement fixation test for syphilis. These outfits should not be used for the submission of specimens that need immediate attention, such as those from cases of meningitis, poliomyelitis or lethargic encephalitis. The outfits designed for specimens for the complement fixation test for syphilis (those with cherry red address slips) are not opened on Saturday afternoons, Sundays or holidays. Specimens of spinal fluid for examinations other than the complement fixation test should, therefore, be sent to the laboratory in miscellaneous outfits (those with pink labels) as these containers are opened every day. If there is special urgency in regard to the examination, a prepaid telegram should be sent, stating that the specimen is being forwarded. Under such circumstances, the specimen will, if necessary, be examined upon receipt even if it arrives in the evening.

POST-GRADUATE COURSE FOR HEALTH OFFICERS.

The Fourth Annual Post-Graduate Course in Infectious Diseases and Public Health offered through the co-operation of the Albany Medical College and the New York State Department of Health, began on March 1, 1923, under the direction of Dr. Charles C. Duryee of the State Department of Health. With the exception of minor changes the course is the same as has been given during the past four years. The Department hopes that physicians other than health officers will take advantage of this and other post-graduate instruction in hygiene, and invites those who have completed this or other New York State Health Officers' Courses to attend all or any part of the present course upon payment of a nominal fee of Five Dollars.

PRUNES.

Contributions Solicited

Dr. Jones was a practitioner in a small Western town and was addicted to card playing. One day he was dragged almost by main force out of his home, where he was engaged in a game of poker, and taken to the bedside of a patient. On his arrival he found the man almost at his last gasp, and began by feeling his pulse with one hand, while with the other he pulled out his watch. He counted the pulse beats in an undertone, his eyes riveted on the minute hand. "One, two, three, four, five, six, seven," he proceeded. "Eight, nine, ten, jack, queen, king, ace!"

The patient burst into a fit of laughter which saved his life.—*Judge*.

A British physician says that "society small talk is a greater strain on the mind than is the discussion of some serious topic." Is the doctor sure that it is a mind which is strained? We have often been on the point of suggesting that several ten-minute intervals of absolute stillness during the course of an evening would be of great benefit to society, soothing intervals in which everybody stood stock still and nobody was permitted to speak; such periods rich in rest as now mark "a nation's tribute" when a great man's funeral is on. Not through death alone should the boon of silence be won. Try it out in your home circle.

Some Mistake.

The telephone in a well-known surgeon's office rang and the doctor answered it. A voice inquired, "Who is this?"

The doctor readily recognized the voice of his seven-year-old son. Although an exceedingly busy man, he was always ready for a bit of fun, so he replied:

"The smartest man in the world."

"I beg your pardon," said the boy. "I have the wrong number."—*The Austin (Tex.) Cumberland*.

A story is told by a Brigadier-General of the Civil War and now hailing from New York, apropos the hospitality of Boston: A clergyman, a temperance lecturer, was in Boston on a December day. He was walking along the Beacon Street Mall, when he slipped on the ice, and saved himself by sitting on one of the benches there. Recovering his breath, he started again and slipped again, and sat down upon the bench. A little girl came along and said, "Lean on my shoulders and I'll help you!" "But, my child," said he, "you are not strong enough to help me!" "Oh, yes, I am," said she. "I've helped father many a time when he was drunker than you are!"

Maybe He Was A Cleanly Soul.

Sir: Realizing that you are the victims of many allusions to freakish headlines, I have frequently restrained myself. But today that sterling organ of the fourth estate, none other than our own *Tribune*, announces that one despondent human "Shoots Self in Bathroom."

Well do I know that the body is the tenement of the soul, but that so lovely and ethereal a thing as the soul should require so material and superfluous an institution as a bathroom is beyond my groping faculty of comprehension.—*H. J. L.*

Preparing the Answer.

Patient: "Can this operation be performed safely, doctor?"

Doctor: "That, my dear sir, is just what we are about to discover."—*London Opinion*.

Revived.

Bret Harte was once lecturing at Harrisburg, in Virginia, and on the morning of his arrival had such a terrible headache that he would cheerfully have died there and then. He went for a walk, accompanied by the person who was to take the chair at his lecture. The latter told him that Harrisburg was a very healthy place, the death-rate averaging only one per diem. "Good heavens!" said Bret Harte, who had been telling his companion how he felt, "has today's man died yet?"—*Detroit News*.

A drunkard of long standing had been reformed by an operation which removed a bone that pressed against the brain. Newspapers also report a number of cures effected by removal of a brass rail that was pressing against the foot.—*Kansas City Star*.

Europe, people continue to shriek, is standing on the brink of disaster. After some six years in this position it does seem as though she might now be able to sit down and swing her legs gayly over the chasm.

The professor was deeply absorbed in some scientific subject when the nurse announced the arrival of a boy. "What—who—?" stammered the professor absently. "Why interrupt me—isn't my wife at home?"

She gave up mutton, pork and beef,
She gave up ades and teas,
She gave up milk, without relief,
She gave up beans and peas
She gave up fruit, and spuds, and jams,
She gave up bread and toast,
She gave up herring, shrimp, and clams,
She 'most gave up the ghost.
She gave up powder, rouge, and men,
She gave up baths and soap.
And when she weighed herself again,
She wept and gave up hope.

—*Wisconsin Octopus*.

Consistent to the Last.

The great banker lay on his deathbed. Many friends gathered about his bed. The attending physician whispered, "I fear he is nearing the Great Divide."

"Tell them not to divide till I get there," whispered the dying man.—*Hours at Powers*.

Mortality Statistics.

Phineas Shark, the eminent statistician and mathematician, estimates that if all the safety zones in the United States were placed side by side, there would still be pedestrians to stand outside of them and automobile drivers who would drive through them.—*Detroit Motor News*.

Logical.

Isabel, aged nine, had just been told the story of Daniel in the lion's den. Then mother asked: "And what do you think Daniel did the very first thing after he was saved from the lions?"

Without much hesitation, Isabel replied: "Why, he must have telephoned home to his wife to tell her he was all right."—*The Northwestern Bell*.

And Echo Answers "Where?"

When "Bill" Travers went to a regatta off Newport one summer, and promptly observed that most of the yachts in the big squadron belonged to Wall Street brokers, he seemed to fall into a reverie, from which he emerged to put the disconcerting query, "I s-s-say, where are the c-c-customers' yachts?"—*Boston Globe*.

County Societies

BRONX COUNTY MEDICAL SOCIETY

REGULAR MEETING, FEBRUARY 21, 1923.

The meeting was called to order at Daubert's, Fordham Road and Concourse, at 8:55 P.M., the President, Dr. Leiner, in the Chair. In the absence of Dr. Landsman, Dr. S. M. Jacobs was appointed as Secretary pro tem.

The minutes of the last regular meeting of the Society were read and approved. The minutes of the last regular meeting of the Comitia Minora were read for the information of the Society.

Election of candidates being in order, it was moved and carried that the Secretary be instructed to cast one ballot for the following applicants for membership:

Louis H. Barenberg, Louis Scheib, August C. Schwenk, Hyman D. Silver, Solomon Smelin.

Louis Winfield Kohn was elected an associate member.

Dr. Henry Roth reported for the Library Committee. He stated that \$2,500 a year would be required. This amount would cover the salary of a Librarian and an Assistant Librarian, the cost of subscription for the most important American medical journals and a number of French, German and English medical journals, and the purchase of some of the important books in the course of the year. The Committee suggests that the Society send a communication to all of its members asking whether they wish to have a library which will entail an expenditure of \$2,500 a year and whether they are willing to pay an annual assessment of at least \$5, which would cover the cost of the library. This report was discussed by Drs. Lukin and Podvin. Dr. Lukin moved that the report be accepted and the questionnaire suggested by the Committee be sent to each member. This motion was carried.

Dr. Van Etten reported for the Committee appointed to consider the matter of presenting appropriate congratulatory resolutions to the Bronx Doctors who have practised medicine for fifty years. He presented the following resolutions:

"WHEREAS, Robert A. Joyce, M.D., a member of the Bronx County Medical Society from the date of its organization, the Physician who first suggested and developed the Fordham Hospital, a member of its first staff, a Surgeon of the New York Fire Department for many years, Physician to the New York Catholic Protectors, to the Clason Point Military Academy, Surgeon to the New York Central Railroad, and to many other departments of public service, has been a continuously active practitioner of medicine from the date of his graduation from the Bellevue Hospital Medical College on March 1, 1873; and

"WHEREAS, He still actively practises his profession in Monroe, Orange County, New York, and is in full enjoyment of his mental and physical vigor, a clear and fearless thinker, having endeared himself, by valuable and sympathetic counsel and by loyal fraternity, to all of our members with whom he came in contact; therefore be it

"RESOLVED, That the Bronx County Medical Society, at a regular stated meeting, extend to our fellow member, Robert A. Joyce, hearty congratulations upon the completion of a half century of active practice of his profession, and also extend to him our best wishes for many more years of health, happiness and prosperity; and further be it

"RESOLVED, That a copy of these resolutions, properly engrossed and signed by the officers of the Society, be

presented to Doctor Robert A. Joyce upon the fiftieth anniversary of his graduation."

Dr. Van Etten moved the adoption of these resolutions, Dr. Jacobs seconded the motion, and they were carried by a unanimous vote.

Dr. Van Etten also presented the following resolutions:

"WHEREAS, The Bronx County Medical Society has learned with great interest that several Physicians, at present residing in the County of the Bronx, have been in the practice of their profession for fifty years or longer, and

"WHEREAS, They have earned the respect and admiration of their fellows in medicine; therefore be it

"RESOLVED, That the Bronx County Medical Society, at a regular stated meeting, extend to

Dr. Theodore H. Kellogg, Bellevue Hospital Medical College, 1865;

Dr. Emil Wettengel, New York University, 1866;

Dr. Charles Lloyd, Eclectic, Pennsylvania, 1867;

Dr. Mark H. Williams, New York University, 1870;

Dr. James John Alexander, Albany, 1871;

Dr. Henry Wald, Vienna, 1872;

Dr. George P. Shirmer, Bellevue Hospital Medical College, 1873; and

Dr. Julius A. Fabricius, St. Louis, 1873,

hearty congratulations upon the success of their pioneer labors, upon their unique opportunities for service, and that we also extend to them our best wishes for many years of continued health and happiness; and be it further

"RESOLVED, That a copy of these resolutions, signed by the officers of this Society, be presented to each one of these gentlemen."

It was moved and seconded that these resolutions be adopted. Carried.

Dr. Gitlow moved that a special committee be appointed, consisting of any number of members that the President feels it necessary to appoint, to start in the organization of sections, first reporting to the Comitia Minora, and if the Comitia Minora thinks it feasible, then the sections are to be started. This motion was discussed by Drs. Jacobs, Goldberger, Gitlow, Palmer and Rost. The motion was then put to vote and was lost.

THE SCIENTIFIC PROGRAM

Presentation of cases:

"Aphonia from Paralysis of Recurrent Laryngeal Nerve Due to the Dilatation of Left Auricle," Nicholas Lukin.

This was discussed by Dr. Sidney Yankauer.

Papers:

1. "The Differential Diagnosis Between Cancer and Other Subacid Conditions of the Stomach," Seymour Basch.

Discussion led by Leon R. Le Wald, William Weinberger, I. Ginzburg and E. C. Podvin. Discussion closed by Dr. Basch.

2. "Clinical Value of X-Ray in Tuberculosis," Lawraon Brown.

Discussion led by J. Alexander Miller, Lewis Gregory Cole, Leon R. Le Wald, Elsie Fox and S. F. Weitzner. Discussion closed by Dr. Brown.

Dr. Lewis moved that a vote of thanks be extended to the readers of the papers and the gentlemen who discussed them. Carried.

COLUMBIA COUNTY MEDICAL SOCIETY

SPECIAL MEETING, HUDSON, N. Y., FEBRUARY 9, 1923.

The meeting was called to order in the Elks' Club, and the following resolutions were passed:

WHEREAS, A Supreme Court Judge has recently rendered a decision fixing a penalty upon a member of the Columbia County Medical Society for stating on a commitment paper, that a person under examination by order of the County Court of Columbia County was, in his opinion, insane; and

WHEREAS, It was shown at the trial of this case that the opinion of some, but not a majority of the staff of the Hudson River State Hospital for the Insane, that this patient was insane, and he was admitted by all of said staff to be a constitutional psychopath, and was held for ninety days under observation in the Hudson River State Hospital on account of his mental condition; be it

RESOLVED, That the officers of the State Medical Society are respectfully urged to secure such legislation as will protect all of its members from punishment for acts done in an honest effort to perform their duty when acting as examiners in lunacy; be it further

RESOLVED, That the State Charities Aid Association be asked to apologize in its official publication for statements in connection with this case which were misleading and would tend to prejudice public opinion against a physician who was trying to do his duty to society, and had information upon which his opinion was entirely justified; be it also

RESOLVED, That the Columbia County Medical Society expresses its confidence in Dr. H. C. Galster, and that his services in the Tanner case were honest and sincere; and that this resolution be spread upon the minutes and published in the city papers.

MEDICAL SOCIETY OF THE COUNTY OF NASSAU

QUARTERLY MEETING, FEBRUARY 27, 1923.

The meeting was called to order in Nassau County Court House. The attendance was less than usual, owing to the conditions of the highways and an unusual amount of sickness in almost every community.

The name of Dr. Joseph B. Musante of Floral Park was proposed for membership and referred to the Board of Censors. The Board of Censors, through their Chairman, Dr. VanKleeck of Manhasset, reported favorably upon the applications of the following:

San Bell Lucent, M.D., Mineola; James S. Hall, M.D., Oyster Bay; Robert F. Hutcheson, M.D., Cedarhurst.

The report of the Board of Censors was adopted and the three applicants were declared duly elected to membership.

President Seaman reported, in brief, on behalf of Dr. Newton, Chairman of the Committee on Legislation, who was unable to be present on account of illness in his family, but who had attended a recent Conference with Governor Smith at Albany, to which the Governor invited the Chairman of the Committees on Legislation of the several County Medical Societies of the State. The result of the Conference was quite satisfactory and the Governor has appointed a Committee of Physicians, to confer with him in reference to all proposed legislation.

A communication was read from the Executive Secretary of the American Birth Control League, asking the Society to approve of a proposed amendment to the Penal Code for Physicians. The matter was laid on the table by unanimous vote, until the Committee on Legislation shall have made some recommendation.

An amendment to the By-Laws, proposed at the annual meeting, last November, was adopted, increasing the number of annual meetings from four to nine, annually, no meetings to be held in June, July and August. The Comitia Minora was requested to report at the March meeting upon the advisability of changing the hour of the meetings from 8 P. M. to 6 P. M. and providing for a luncheon or dinner.

The Scientific Program was interesting and profitable. Dr. Frank Howard Richardson of Brooklyn, Regional Consultant in Pediatrics for Nassau and Suffolk Counties, gave a very practical address upon Infant Feeding.

Dr. Arthur C. Martin of Rockville Center, Regional Consultant in Obstetrics for Nassau and Suffolk Counties, in a practical and interesting address, presented the plan of the New York State Department of Health for the improvement of maternal and infant care. Dr. Franklin W. Barrows of Albany, Assistant State Medical Inspector of School, gave a very interesting address upon the purposes, methods and results of Medical Inspection of Schools in New York State.

Books Received

Acknowledgment of all books received will be made in this column, and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interest of our readers.

IMPOTENCY, STERILITY AND ARTIFICIAL IMPREGNATION. by FRANK P. DAVIS, Ph.B., M.D., Fellow American Medical Association. Second Edition, Revised and Enlarged. C. V. Mosby Co., St. Louis, 1923. Price, \$2.25.

CLINICAL LABORATORY METHODS. By RUSSELL LANDRAM HADEN, M.A., M.D., Associate Professor Medicine, University Kansas, School Medicine. 69 Illustrations, 5 Color Plates. C. V. Mosby Co., St. Louis, 1923. Price, \$3.75.

A TEXTBOOK OF PHYSICS AND CHEMISTRY FOR NURSES. By A. R. BLISS, JR., Ph.G., Ph.Ch., A.M., Phm.D., M.D., Lecturer, Chemistry and Materia Medica, Grady Training School for Nurses, Atlanta; A. A. OLIVE, A.B., A.M., Ph.Ch., Phm.D., Lecturer on Chemistry, Hillman Hospital Training School for Nurses, Birmingham. 70 illustrations, Third Edition, thoroughly revised and rewritten. J. B. Lippincott Co., Phila. and London.

HOW WE RESIST DISEASE, AN INTRODUCTION TO IMMUNITY. By JEAN BROADHURST, Ph.D., Assistant Professor of Biology, Teachers College, Columbia University. 138 illustrations, 4 Color Plates. J. B. Lippincott Co., Phila. and London. Price \$2.50.

ESSENTIALS OF SURGERY. A Text Book of Surgery for Students and for Those Interested in the Care of the Sick. By ARCHIBALD LEETE McDONALD, M.D. Lecturer on Surgery, Nurses Training School, St. Luke's Hospital, Duluth, Minn. 49 Illustrations. Second Edition, Revised. J. B. Lippincott Co., Phila. and London.

NUTRITION OF MOTHER AND CHILD. By C. ULYSSES MOORE, M.D., M.Sc. Instructor Diseases Children, University Oregon Medical School. Including Menus and Recipes by Myrtle Josephine Ferguson, B.S., B.S. in H.Ec., Professor Nutrition, Iowa State College. 33 Illustrations. J. B. Lippincott Co., Phila. and London. Price \$2.00.

NOTES ON MATERIA MEDICA, PHARMACOLOGY AND THERAPEUTICS FOR DENTAL STUDENTS AND PRACTITIONERS. By FRANK COLEMAN, M.C., L.R.C.P., M.R.C.S.,

L.D.S., Assistant Dental Surgeon St. Bartholomew's Hospital. Henry Frowde and Hodder & Stoughton, London. Price \$3.25.

PRACTICAL PHYSICS. By J. A. CROWTHER, Sc.D., F. Inst.P., Some time Fellow of St. John's College, Cambridge Demonstrator of Physics in the Cavendish Laboratory. Henry Frowde and Hodder & Stoughton, London. Price \$3.25.

A TEXT-BOOK OF THE PRACTICE OF MEDICINE. By Various Authors, edited by FREDERICK W. PRICE, M.D., F.R.S. (Edin.), Senior Physician, Royal Northern Hospital; Physician to the National Hospital for Diseases of the Heart, London. Henry Frowde and Hodder & Stoughton, London. \$10.00.

DISEASES OF THE EAR, NOSE AND THROAT, MEDICAL AND SURGICAL. By WENDELL CHRISTOPHER PHILLIPS, M.D., Professor of Otology, N. Y. Post-Graduate Medical School and Hospital; Surgeon Manhattan Eye, Ear and Throat Hospital. Sixth Revised Edition. Illustrated 578 Half-tone Text Engravings, Many of them Original; including 37 Full-page Plates, Some in Colors. F. A. Davis Co., Phila. 1922. Price \$8.00 net.

PRINCIPLES AND PRACTICE OF INFANT FEEDING. By JULIUS H. HESS, M.D., Professor and Head Department Pediatrics, University Illinois College of Medicine. Illustrated. Third Revised and Enlarged Edition. F. A. Davis Co., Phila. 1922. Price \$4.00 net.

FEEDING, DIET, AND THE GENERAL CARE OF CHILDREN. A Book for Mothers and Trained Nurses. By ALBERT J. BELL, A.B., M.D. Assistant Professor Pediatrics, Medical Department University of Cincinnati; Attending Pediatrician Cincinnati General Hospital. Illustrated. F. A. Davis Co., Phila. 1923. Price \$2.00 net.

TEXT-BOOK OF ANATOMY AND PHYSIOLOGY, FOR TRAINING SCHOOLS AND OTHER EDUCATIONAL INSTITUTIONS. By ELIZABETH R. BUNDY, M.D., Formerly Adjunct Professor of Anatomy in the Woman's Medical College of Pennsylvania. Fifth Edition, Revised and Enlarged by Martha Tracy, M.D., Dr.P.H., Professor Nutritional Hygiene, Woman's Medical College of Pennsylvania, and Grace Watson, R.N., Educational Directress, Philadelphia General Hospital Training School for Nurses, with a Glossary and 206 Illustrations, 46 in colors. P. Blakiston's Son & Co., Phila. Price \$2.50 net.

EXERCISE IN EDUCATION AND MEDICINE. By R. TAIT MCKENZIE, M.D., LL.D., Professor Physical Education and Physical Therapy and Director Department Physical Education, University Pennsylvania. Octavo, 601 pages, 445 Illustrations. Phila. and London. W. B. Saunders Co. 1922. Cloth, \$5.00 net.

TEXT-BOOK OF OPHTHALMOLOGY. By HOFRA ERNST FUCHS, former Professor Ophthalmology University Vienna. Authorized translation from the Twelfth German Edition; with numerous additions specially supplied by the author and otherwise much enlarged, by Alexander Duane, M.D., Surgeon Emeritus, Knapp Memorial Hospital. 455 illustrations. Seventh Edition, revised and reset. J. B. Lippincott Co. 1923.

YOUR INNER SELF. By LOUIS E. BISCH, A.B., M.D., Ph.D., Doubleday, Page & Co., Garden City, N. Y., 1922.

THE SUCCESSFUL PHYSICIAN. By VERLIN C. THOMAS, M.D. Visiting Physician to Franklin Hospital, San Francisco, Octavo 303 pages. Phila. and London: W. B. Saunders Co., 1923. Cloth, \$4.00.

Book Reviews

THE ELEMENTS OF SCIENTIFIC PSYCHOLOGY. By KNIGHT DUNLAP, Professor Experimental Psychology, Johns Hopkins University, Baltimore. Illustrated. C. V. Mosby Co. 1922. Price \$3.50.

As the title implies, this is a work intended primarily for the college student, but it should also be useful for professional men who wish to become familiar with the foundations of modern psychology, for it represents the general point of view on which rests the psychology that is being applied in the fields of education, industry and the arts, and which will undoubtedly be applied to medicine before long. As Professor Dunlop states, the psychology of today is a science of the conscious responses of the organism, and as such is called upon to furnish materials applicable to the problems of physical science, education, industry and the arts. No one thinks to-day of calling upon the old introspective methods of psychology for help in any of the problems of life, but turns rather to the scientific psychology whose subject matter is the world of real objects and real activities and whose methods are those of all science. On the other hand, it must not be thought that scientific psychology is a new invention; it is rather a development by evolutionary processes of the older psychology, and has no affiliation with "new psychology," and with revolts against the essential facts of psychology.

The work has been designed for the purpose of introducing the student to the elements of psychology, and therefore deals only with its general problems, omitting such specific topics as animal, child, social and abnormal psychology; of sleep and dreams.

The book is extremely well written from the scientific point of view, but is not particularly simple in its elucidation; while the author apologizes for the difficulties of the first chapter, the beginner in psychology will encounter many difficulties in the succeeding ones. In other words, while the subject matter deals with the elements of psychology, it is itself far from being elementary in form.

THE TREATMENT OF FRACTURES: With Notes upon a Few Common Dislocations. By CHARLES L. SCUDDER, M.D., Assistant Professor Surgery Harvard Medical School. Ninth Edition, Revised. Octavo, 749 pages, 1,252 illustrations. Phila. and London: W. B. Saunders Co. 1922. Polish Buckram. \$8.50.

In the interval of six years which has elapsed since the appearance of the preceding edition of this work a veritable revolution has occurred in the treatment of fractures, occasioned most notably by the experience afforded by the World War. The principles underlying treatment of fractures are identical whether they occur in civil or in war-time surgery. The newer methods are adequately presented, and some of the older, concerning which there is no doubt as to their established value, have been retained.

The foremost single contribution of the war toward improvement in the treatment of open fractures is the Carrel-Dakin treatment of infected wounds. The recognition and treatment of shock, the first aid dressing, transportation, minimizing trauma, emergency traction and suitable immobilization are points which are stressed by Scudder. An important lesson which threatens to be universally accepted is the use of the Thomas Splints and similar types. Emphasis is laid on direct and indirect traction to correct shortening in fractures of the long bones, as opposed to direct operative fixation in suitable cases. The trend of the times is toward revolt against the use of metallic sutures, plates and bands, a prophecy fast being fulfilled and made by the reviewer with the advent of the autogenous bone graft. The war has brought again vividly into the limelight the suspension methods of treatment in frac-

tures of the extremities. Other points emphasized are the following: 1. Early movement of joints in the neighborhood of fractures. 2. Active movement of joints, especially septic joints. 3. The Whitman method is the treatment of choice in fracture of the neck of the femur.

Dr. Scudder has rewritten a splendid book, and deserves much credit for a safe, sane and scholarly presentation of a difficult subject. The author attempts to disarm possible criticism for describing some of the antique methods. He states that all matter of sole historic interest will be eliminated in the subsequent printing. Some are left because the new are not as yet generally accepted.

R. H. FOWLER.

OBSTETRICS FOR NURSES. By JOSEPH B. DELEE, M.D., Professor of Obstetrics in the Northwestern University Medical School, Chicago. New (6th) Edition, entirely reset. 12mo, 525 pages. 245 illustrations. Philadelphia and London: W. B. Saunders. 1922. Cloth, \$3.00 net.

This book is written with the usual clear and lucid style of Dr. DeLee, and it is not saying too much when we can recommend it, not only to the nurses, but to the doctors as well.

All phases of obstetrical nursing are taken up, and the duties of the nurses clearly outlined. Of especial interest is the chapter devoted to the preparation of the lying-in-room in a private home, and the lesson of using the material at hand well brought out.

Instruction as to prophylaxis and asepsis are constantly met with, and it is made clear that obstetrical nursing requires particular care, patience, and skill.

The value of medical gymnastics is well shown, not only by descriptive means, but by excellent photographs which clearly illustrate the points in question.

The care of the infant is thoroughly reviewed, and the value of maternal nursing emphasized.

In short, this book covers its chosen field with that clear insight and scientific observation that only long practice and meticulous care can bring.

G. W. P.

PIRQUET'S SYSTEM OF NUTRITION. An Outline of the Pirquet System of Nutrition. By DR. CLEMENS PIRQUET, Professor Pediatrics, University of Vienna, Austria. 16mo, 96 pages. Phila. and London: W. B. Saunders Co. 1922. Cloth, \$2.00 net.

Prof. Pirquet, in less than one hundred pages, has given us a resumé of his Silliman Lectures at Yale University in the winter of 1921-22. The system of feeding described is based upon two main factors, of which the first is the estimation of the food requirements of the child according to his sitting height. The second is the establishment of a food unit or "nem," which is the nutritive, combustible, value of one gramme of milk. The necessity for establishing the relative values of foods as compared with milk arose during the great war, when milk was extremely scarce in Austria, and substitutes of all kinds had to be used. Pirquet coined a number of words used in his text, which are composed of the initials of the constituents of his formulæ; these need not be considered here.

In one chapter of the book calories and nems are compared; in another, feeding in the first year of life. A third chapter takes up the treatment of tuberculosis, and still another considers the value of proper feeding as a preventive medicine. There are also tables of food values and formulæ, and a fairly complete bibliography. Although this system of feeding has not been generally accepted nor widely used in this country (mainly because of the abundance of milk, and the satisfactory results from the caloric method with attention to vitamins), nevertheless Pirquet's standing in the medical world and the success which attended his

use of this method in Austria, make it imperative that his book be given great respect and careful reading.

W. H. DONNELLY.

THE HEART AS A POWER-CHAMBER, A CONTRIBUTION TO CARDIO-DYNAMICS. By HARRINGTON SAINSBURY, M.D., F.R.C.P., Consulting Physician Royal Free Hospital and City of London Hospital Diseases of the Chest. Oxford Medical Publications. 1922. Price \$3.75.

This little book deals with the physiology of the heart, and aims to draw some clinical conclusions from the points set forth. The general style is leisurely, with a tendency to repetition. There are certain descriptive passages concerning the form and movement of the heart, that are so brilliant that one might find nothing else in the book and still be repaid for reading it. His physiology is for the most part orthodox and furnishes a good review for anyone interested in the subject. He introduces some novelties, however, that are interesting. His contention that the papillary muscles and the apical tissue go into contraction before the mass of ventricular muscle, seems to have a logical basis in the arrangement of the muscle fibres, aside from the physiological considerations which he presents in substantiation of his theory. His interpretation of the venous waves differs from that of most physiologists, and quite overlooks the clear electrocardiographic evidence to the contrary. In his therapeutic statements he becomes dogmatic and theoretical. Speculation replaces evidence, and the result is not convincing.

T. H.

A TEXT-BOOK OF HUMAN PHYSIOLOGY, INCLUDING A SECTION ON PHYSIOLOGIC APPARATUS. By ALBERT P. BRUBAKER, A.M., M.D., LL.D., Professor Physiology and Medical Jurisprudence Jefferson Medical College; Seventh edition, revised and enlarged. 367 illustrations. Blakiston's Sons & Co., Philadelphia. 1922.

In the present volume the author has included such physiological data of value as has been accumulated since the publication of the previous edition. This new matter relates to vitamins, the chemistry of the blood, the physiologic action of the heart, the action of the vagus nerve on the heart, the chemic relations of oxygen and carbon dioxide in the blood, respiration at high altitudes, the determination of the heat production by modern calorimetric appliances, the secretion of urine, acidosis and basal metabolism. In addition many new illustrations have been added which help to maintain the standard of excellence set by the previous editions of this work.

FRANK E. MALLON.

PULMONARY TUBERCULOSIS. By MAURICE FISHBERG, M.D. Third Edition, revised and enlarged. Octavo of 891 pages, 129 engravings, 28 plates. Phila. and New York: Lea & Febiger. 1922. Cloth, \$8.50.

This third edition of Dr. Fishberg's work to appear within six years bears witness to the esteem in which it has been held and to the intrinsic merit which has justified that esteem. Nearly 250 more pages are in this than in the first edition, and nothing useless has been added. The present day knowledge of pulmonary tuberculosis is presented in a definite, clear, pleasing style, and details of treatment strictly practical and applicable to the home care of patients are emphasized. Fifty pages are devoted to artificial pneumothorax.

The two new chapters enhance the value of the book. In them the author gives the relation of trauma to the causation of pulmonary tuberculosis, a subject now of daily consideration in our workmen's compensation boards, in civil damage suits, and with our after-war patients and their pensions. The relation of pulmonary

tuberculosis to other normal conditions or diseases existing in the body at the same time, as growth, puberty, sexual function, the tonsils, the kidneys, the circulatory organs, the infectious diseases, including influenza and many others, have received such thought and sound reasoning as to make this a splendid chapter. On pregnancy with pulmonary tuberculosis the author's views have broadened much since the first edition, and to his own credit. "The deleterious effects of pregnancy and labor have been exaggerated by some authors" (p. 583), and this is certainly true.

In all, Dr. Fishberg's book is worth owning.

F. A. McG.

LECTURES ON DIETETICS. By MAX EINHORN, M.D., Emeritus Professor Medicine N. Y. Post-Graduate Medical School and Hospital; Visiting Physician Lenox Hill Hospital. 12mo of 244 pages. Phila. and London: W. B. Saunders Co. 1922. Cloth, \$2.25 net. This is the second edition of Dr. Einhorn's lectures, and it contains nine more chapters than the first.

There are several outstanding points noted by even a casual perusal of the work. These are simplicity of style, conciseness of diction, and clarity and good arrangement of text.

The author's consideration of the subject is authoritative without being involved; he not only tells us what patients must not have, but also what they may eat, and exactly how to prepare it. Obviously, digestive tract disturbances, kidney disease, and diabetes mellitus must and do take up by far the greater part of the reading matter. Duodenal alimentation, in which Dr. Einhorn was a pioneer, has a chapter devoted to it, and not only is rectal feeding discussed, but also the somewhat unusual method of subcutaneous administration of food. It is rare to find, as is the case here, a book which is scientific enough for the most advanced specialist and yet simple enough for the youngest medical student.

Consequently, its usefulness is not limited, but, on the contrary, widespread in its application.

W. H. DONNELLY.

MONOGRAPHS ON EXPERIMENTAL BIOLOGY. Edited by JACQUES LOEB, Rockefeller Institute, T. H. MORGAN, Columbia University, W. J. V. OSTERHOUT, Harvard University. "Injury, Recovery and Death, in Relation to Conductivity and Permeability," by W. J. V. OSTERHOUT, Professor of Botany. J. B. Lippincott Co., Philadelphia, 1922.

The modern tendency in science appears to be toward "exactness," not only in experimental procedure and in the interpretation of results, but particularly in the presentation of data obtained. That a mathematical formula best fulfills this requirement of definiteness and accuracy is obvious.

In this book the author attempts to treat certain aspects of biology according to the spirit and methods of the exact sciences. Such phenomena of tissue as vitality, injury, recovery and death, he has investigated by quantitative methods, employing for the purpose the marine plant, *Laminaria Agardhii*, and interpreting its electrical resistance to be a criterion of the degree of vitality present in the tissue. The data thus obtained were used to formulate a theory of some aspects of injury, recovery and death. Mathematical expression of the theory in the form of an equation will permit one to predict with fair accuracy the behavior of an organism under varying environmental modifications.

In general the author has, in the present work, extended to the study of living matter those exact methods of investigation which have been found so useful and satisfactory in the allied sciences of physics and chemistry. Despite the somewhat technical nature of the author's thesis he has maintained throughout the volume a clearness of presentation which is commendable.

FRANK E. MALLON.

DISEASES OF THE STOMACH AND UPPER ALIMENTARY TRACT. By ANTHONY BASSLER, M.D., F.A.C.P., Prof. Gastro-enterology. New York Polyclinic Medical School and Hospital. Fifth Edition, revised and enlarged. Illustrated. 151 half-tone and line text engravings, 93 full-page plates, 164 figures, plain and in colors, from original photographs and drawings. F. A. Davis Co., Phila., 1922. Price, \$8.00.

The name of Anthony Bassler as author is an attraction for any work in his chosen specialty. This book well discloses his careful clinical and scientific mind, trained by a wide experience.

Every chapter is uniformly complete. It might even be said that important facts lose their prominence in the mass of detail. The fundamental studies, as anatomy and physiology, are very well treated in their relation to the subject.

A noteworthy feature is the honest and simple manner in which certain chapters are treated. Such certainly is the case in the part on "Diagnostic Value" of various examinations of gastric contents, faeces, urine, blood, etc.

The general practitioner and the specialist, alike, can not miss reference to this work. It well deserves a place in every physician's library.

B. M. EIS.

X-RAY DOSAGE IN TREATMENT AND RADIOGRAPHY. By WILLIAM DANIEL WITHERBEE, M.D., Radiotherapist Presbyterian Hospital, New York; and JOHN REMER, M.D., Radiotherapist New York Hospital; Consulting Radiotherapist United Hospital, Port Chester. The Macmillan Company, New York, 1922. Price, \$1.75.

This handbook of less than one hundred pages concisely covers the estimation of X-ray dosage, filtered and unfiltered, as used in treatment with voltage, equivalent to a nine-inch spark gap and less; it does not include the newer deep (upward of 200,000 volts) therapy. The dose estimation is made according to a mathematical equation formed by the authors and as recommended by them in the medical literature, for the past few years; such a formula may be applied in radiography as well as in therapy.

The treatment of tonsils and adenoids in conjunction with exophthalmic goitre and tuberculous glands, of Hodgkin's disease and the fundamentals of radiotherapy of skin diseases are briefly discussed. There has been need of a treatise of dosage such as is here represented, and this work undoubtedly will prove a distinct service to all interested in Roentgenology and therapy.

RICHARD A. RENDICH.

CLINICAL DIAGNOSIS, CASE EXAMINATION AND THE ANALYSIS OF SYMPTOMS. By ALFRED MARTINET, M.D., Paris, France. With collaboration of Drs. DESFOSSÉS, G. LAURENS, LÉON MEUNIER, LUTIER, SAINT-CÈNE, and TERSON. Authorized English Translation from the third, revised and enlarged edition, by LOUIS T. DEM. SAJOUS, B.S., M.D., Philadelphia. 895 text engravings, several full-page color plates. Complete in two royal octavo volumes. Volume I, Physical and Laboratory Diagnosis. Volume II, Analysis of Symptoms. F. A. Davis Co., Phila., 1922. Price, \$14.00.

This is an excellent two-volume work on diagnosis. The first volume is devoted to methods of examination, physical and laboratory. Taking the various systems in turn, the author describes briefly and clearly the methods he has found useful. These include physical examination of all parts of the body, the use of diagnostic instruments and laboratory diagnosis. The laboratory procedures are fairly simple and will appeal to some clinicians for their personal use. The technic of many of these indicates a European origin and differs from methods adopted as standard in this country. However, one cannot quarrel with Dr. Martinet about differences in technic, if results are the same. This volume is profusely illustrated.

Volume two is devoted to interpretation of symptoms,

which are listed alphabetically. The discussion of the arrhythmias, dyspnoea, the exanthemata, headache, high blood pressure and regional pains is particularly to be commended. The author has succeeded in putting his own personality into these pages, and one gains an impression of a man whose work is characterized by thorough, systematic examination, wide knowledge and sound common sense.

E. B. SMITH.

FOOD, HEALTH AND GROWTH. A DISCUSSION OF THE NUTRITION OF CHILDREN. By L. EMMETT HOLT, M.D., LL.D., President Child Health Organization. The Macmillan Co., New York, 1922. Price, \$1.50.

The text of Dr. Holt's new small book contains a series of lectures delivered at the Medical School of Leland Stanford Junior University in December, 1921.

A large part of the work is based on studies carried on at the Babies Hospital by the author and Helen L. Fales, as to the food requirements of children at different stages of growth and development. As is to be expected, the vitamins have a lengthy chapter given over to them and the modern views on deficiency diseases are considered.

There are practically no references or citations of the literature in the text, mainly for the reason that the book has been written in such a simple form as to be easily used by lay students of nutrition and the general public.

Methods of preventing malnutrition, and of correcting it when found, are taken up with the view to stamping out the widespread undernourishment which prevails at the present time in childhood.

W. H. DONNELLY.

INDIVIDUAL GYMNASTICS. A Handbook of Corrective and Remedial Gymnastics. By LILLIAN CURTIS DREW. 12mo, of 225 pages, illustrated with 100 engravings. Philadelphia and New York, Lea & Febiger, 1922. Cloth, \$2.00.

It would benefit every practicing physician and surgeon to read this little book, if only to direct his thoughts into unaccustomed channels. Medical Gymnastics should be an accepted branch of Therapeutics, a fact which is fully recognized by the author. The arrangement of the subjects treated is very good, the chapters on posture being especially well written.

The trend of Medicine today is along the lines of prevention rather than cure. Prophylactic hygiene practised in the home and school would prevent many of the ills induced by faulty posture during childhood, and the Doctor should be the mentor, which he is not at the present time.

The final chapters on subjects more definitely medical are less illuminating, although the exercises prescribed may prove of value in selected cases.

Altogether the book is very readable, the type clear, and the illustrations snappy and informing.

S. B. T.

PHYSIOLOGY AND BIOCHEMISTRY IN MODERN MEDICINE. By J. J. R. MACLEOD, M.B., Professor Physiology, University of Toronto. Assisted by ROY G. PEARCE, A. C. REDFIELD, N. B. TAYLOR and others. Fourth Edition. 243 illustrations. 9 plates in colors. C. V. Mosby Co., St. Louis, Mo. 1922. Price, \$11.00.

To most students of physiology and the allied sciences the previous editions of this excellent work are well-known volumes. In this fourth edition certain chapters have been rewritten, such as those on the output of the heart, the conditions causing alterations in the acid base equilibrium of the blood, the normal electrocardiogram and the movements and emptying of the stomach. In the remaining chapters the author has incorporated much of the valuable physiological data that has been accumulated in the past two years. All these alterations have been made without changing the paging of the book.

This edition is well supplied with excellent illustrations

and cuts. A most extensive bibliography and an unusually complete index add considerably to the value of the work.

FRANK E. MALLON.

DISEASES OF WOMEN. By HARRY STURGEON CROSSEN, M.D., F.A.C.S., Clinical Professor Gynecology, Washington University Medical School. Fifth Edition, Revised and Enlarged. 934 engravings, one color plate. C. V. Mosby Co., St. Louis, Mo., 1922. Price, \$10.00.

A review of this last edition shows that it is in keeping with the editions that have preceded, i.e. the latest additions, to the Gynecologists armamentarium, have been ably brought out and their respective value and use made clear, new pathological data described and well illustrated, new therapeutic agents evaluated.

The book, as its predecessors, is indeed complete and yet a little fuller discussion of certain questions would be most welcome.

The illustrations are excellent, the print easy to read and the arrangement of subject matter logical. It is indeed a storehouse of reference and a certain guide in the labyrinth of gynecological highways.

G. W. P.

REPORTS OF THE ST. ANDREWS INSTITUTE FOR CLINICAL RESEARCH, ST. ANDREWS, Vol. 1. Henry Frowde and Hodder & Stoughton, London, 1922.

These reports show us the scope of the work which is being undertaken at St. Andrews Institute for Clinical Research. Much is being attempted and accomplished by a capable staff working under the direction of Mackenzie. It is a work of education and an attempt to prevent serious results from preventable conditions. If the potential patients could be made as enthusiastic as those who are trying to prevent disease, we would soon arrive at a condition of much better community health. The individual papers presented cover their individual fields thoroughly and in a scholarly manner. This report contains much valuable information and future annual reports will be looked forward to in order to see the results of this pioneer movement.

H. M. M.

ASHBY AND WRIGHT'S DISEASES OF CHILDREN, MEDICAL AND SURGICAL. Revised by H. T. ASHBY, B.A., M.D. (Camb.), M.R.C.P. (Lond.), Honorary Physician Manchester Children's Hospital, CHARLES ROBERTS, M.B., B.S. (Lond.), F.R.C.S., Consulting Honorary Surgeon Manchester Children's Hospital. Sixth Edition, revised and rewritten. Oxford Medical Publications, 1922. Price, \$12.50.

This is the sixth edition and is based, as were the preceding ones, on long observation and experience at the Manchester Children's Hospital, which institution, even at the time of the appearance of the first edition in 1889, treated 2,300 in-patients and 20,000 out-patients annually.

It would seem, from the necessarily brief consideration that can be given to each individual diseased condition in one volume purporting to cover both the medical and surgical sides of children's diseases, that the most apt and useful purpose of this work must be for the student and general practitioner. It does not go minutely enough into any subject to be of real value to the specialist, whether he be paediatrist or surgeon. The section on Infant Feeding is not in accord with the general views or procedure in this country, and the contrast is interesting and instructive. The book is well gotten up, and well bound, containing over 200 illustrations, woodcuts, photographs and radiographs. An appendix takes up dietetic and therapeutic procedures and formulae. The chief value of this, and similar treatises, lies in the presentation of the views and methods of other countries than our own, thus paralleling the benefit derived from travel in those lands.

W. H. DONNELLY.

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COMMON VAGINAL DISCHARGES ENCOUNTERED IN PRACTICE.*

By JAMES E. KING, M.D., F.A.C.S.,
BUFFALO, N. Y.

LEUCORRHEA, backache and constipation are the natural heritage of woman. Every physician in general practice sees many women who apply to him for relief from the "whites." Physician and patient, however, frequently experience a mutual disappointment in the failure of treatment to relieve the condition. The reason why cures are not more often effected is the result of misconception of etiology and pathology, and misdirected treatment. Successful treatment can only follow upon a correct understanding of the source and etiology of the discharge in each individual case. In what follows, the writer has attempted to classify in a practical way the common discharges, both as to source and etiology, and to outline a rational treatment. The discharge resulting from the grosser pelvic pathology, such as cancer and fibroid, will not be considered.

A vaginal discharge must be regarded as a symptom only, and one which results from some underlying pathology of the endometrium of the body of the uterus, the cervical canal, or the vaginal walls. Each of these membranes has certain histological characteristics which determine very largely the type of discharge resulting when they are diseased. The vaginal tube is lined by a membrane covered by squamous epithelium with practically no glands. A discharge having for its source the vaginal walls will not be mucous, but of a thin serous character. The cervical canal is lined by columnar epithelium, and has many deeply penetrating mucous glands whose normal secretion consists of a thick, tenacious mucous. Pathology of this membrane will result in an increased discharge of a thick, tenacious mucous from these glands. The membrane of the body also has an abundance of mucous glands, but their secretion, instead of being a thick mucous, is thin. With these facts in mind, it is understood how attention to the physical characteristics of a discharge may suggest its source. Having determined the source, the path-

ology and its underlying cause should be sought. There is wide range in the pathology that causes vaginal and cervical discharge, but the factors producing that pathology may all be simply grouped under two headings: first, infections, and second, those factors, local and general, which influence the circulation and the nutrition of the mucous membranes involved.

As a basis for the discussion, the most common vaginal discharges only will be considered, touching briefly on their etiology, pathology and treatment.

The first group is the vaginal discharge of infants and children. By far the greater majority of such cases the cause is the gonococcus. A simple vulvitis may result from uncleanliness, and occasionally as a result of a general infection, but in the writer's experience, a vaginitis in infants and children is almost invariably gonorrhoeal in origin. This is in direct contrast to the vaginitis in adults, which is practically never gonorrhoeal. The methods by which the gonococcus finds access to the vagina of children are many. The reason why infection may so easily occur is found in the fact that the vulva of the child is normally gaping, and it remains so until at puberty the muscles about the introitus develop and functionate. This gaping permits bath water, hands, and clothing to readily transfer to a very susceptible membrane any infection they may carry. The persistence of such infections is well known. Early there is no difficulty in identifying the gonococcus. Later, as invasion of other germs takes place, the mixed infection will predominate. For this reason, it may be impossible to find the primary infecting gonococcus.

The pathology resulting from such infection varies. In the most severe cases, denuded vaginal areas cause contractions, or result in adhesion of opposing surfaces. This explains the occasional vaginal stricture and atresia seen in adults.

The basic principles in the treatment of such cases is cleanliness and the frequent use of the albuminoid silver preparations. Recent cases should receive just as vigorous treatment as a gonorrhoeal ophthalmia. Every two hours a thorough cleansing douche through a small rubber catheter should be given, followed by the injection of the silver. Antiseptics, such as perman-

* Read at the Annual Meeting of the Medical Society of the State of New York, at Albany, April 20, 1922.

ganate, bichloride or iodine, unless used in extremely weak solution, are distinctly harmful. As the gonococcus disappears from the discharge, a mild astringent douche may be substituted. Zinc chloride, in strength of 20 grains to the quart, meets all the indications at this stage. When possible, these little patients should have hospital care. An intelligent mother, however, may often be entrusted to carry out such treatment. A most impressive warning should be given mothers and nurses caring for these patients, by emphasizing the extreme contagiousness for other children of the household.

The next type of leucorrhœa, and the one most commonly met with in practice, consists of a thick, tenacious, clear mucous. This type may be found in virgins, the nulliparous or parous. The patient complains of constant moisture at the vulva, which, upon investigation, she finds to be a clear, thick, glary mucous. Examination with a speculum discloses a puddle of tenacious mucous in the vaginal vault, and a stream of the same issuing from the cervix. Efforts to wipe it away meet with ill success. The source of such a discharge is always the cervical canal. The mucous accumulated in the vagina not uncommonly is yellowish, while that seen in the os may be colorless. This difference in color is due either to admixture with the vaginal secretion, or to vaginal contamination by accidental bacteria. It is important to carefully observe the discharge as it appears at the os, for should it be purulent, it would speak for an infection of the cervical glands. The etiological factors responsible for these cervical discharges are numerous, but they all may readily be found under the general classification above mentioned, local infections and circulatory and nutritional disturbances. Of the infections, gonorrhœa holds first place, but other simpler infections of the cervix may play either a primary or secondary rôle. The importance, however, of recognizing these infections is manifest. There is, however, a large group of causes not dependent upon infections. In women who have borne children, if infections can be excluded, this type of leucorrhœa will almost invariably be associated with some pelvic condition such as retrodisplacement, subinvolution, lacerated cervix, or prolapsed ovaries, with varicocele of the broad ligaments.

Erosions of the cervix, or so-called "ulcers," so commonly found in connection with such cases, are often mistakenly regarded as the cause of the discharge. The erosions are the result of the discharge, not the cause, and they contribute only the moderate amount of serum that might be expected from any granulating surface of similar area. There are a proportion of cases which apparently are associated with a normal pelvis. In such we must consider the discharge to be the result of a catarrhal endocervicitis, the

underlying cause being some constitutional state. Virgins, in particular, are prone to this form of endocervicitis, and in the majority of these, the cause is not hard to find. These girls are usually anaemic, poorly nourished individuals, and often present the complete picture of visceroptosis. Young women whose occupation necessitates an indoor life, and whose living conditions are unhygienic, constitute a large number of these patients. The general measures to be carried out in the treatment of such as these are too obvious to require discussion.

In women where there is an associated pelvic lesion, treatment should comprise local and general measures. Repair or amputation of a lacerated cervix, correction of a displacement by pessary or surgery, may be the first step necessary. An engorged cervix or a subinvolted uterus may be depleted by appropriate tampons and prolonged hot douches. There is much confusion regarding the value of medicated douches in the treatment of this type of discharge. The laity entertains an abiding faith in douches, and any agent imparting smell or color to the water satisfies the demands of the average woman. Consequently, proprietary powders enjoy a brisk sale. For the same reason, lysol and iodine are domestic favorites. In a measure, the popularity of these remedies is due to physicians who often advise their use indiscriminately. The source of such discharge being the cervical canal, it is easily understood that no douche can penetrate to the seat of trouble. Proper douches do, however, possess a value. As a cleansing agent, they impart comfort and create a relative improvement by removing from the vagina accumulated mucous, which otherwise would be free to drain out upon the clothing. The employment of a mild astringent douche may also be of direct value, by correcting any associated vaginal condition that may contribute its part to the discharge.

Local applications to the cervical canal have always been popular in office treatment. In the offices of the older practitioners, nitrate of silver in varying strengths, and a mixture of equal parts of carbolic acid and iodine, were always to be found. These remedies, when used in the cervical canal, cause the mucous to coagulate at once into a firmly organized plug, which prevents further penetration of the remedy to the base of the glands where it might be of value. In the treatment of an associated cervical erosion, however, these remedies may be a distinct aid. In addition to the local treatment, general measures must not be neglected when there is indication.

When this type of cervical leucorrhœa has for its underlying cause a chronic gonorrhœal infection, it assumes especial importance. The difficulty in demonstrating the germ in these long

standing infections is well known. A careful history may give hint, or search about the ducts of Bartholin's and Skene's glands may give evidence sufficient to establish a diagnosis. The discharge at the os in such cases usually has a more or less well marked evidence of pus, but the microscope, after repeated attempts, may fail to demonstrate the gonococcus. If, however, the history and clinical evidence weighs heavily in favor of a specific infection, failure to demonstrate a germ should not influence one's diagnosis.

The treatment of these cases is notoriously unsatisfactory. Effort should be made, however, by frequent use of strong albuminoid silver solutions to dislodge the gonococcus from the cervical glands. It frequently happens, however, that after prolonged treatment, the woman is bankrupt both in patience and means, and insists upon some more radical procedure. It is then that the physician, in his extremity, suggests a curettage. There are excellent reasons why a curettage in these cases should not be done. One is that it has no value as a curative measure, and another still more important reason lies in the fact that a curettage frequently rekindles an old infection with its spread from the uterus to tubes with the usual results. It is well as soon as a diagnosis of infection is clearly established, to prepare the woman for slow improvement, and to warn against curettage. Where persistent treatment fails, there only remains removal of the infected glands. This may be accomplished by amputation of the cervix, or, as has lately been suggested, coning out the cervical canal in such a way as to include the glands, and inverting the remaining shell of cervix to form a new canal. The use of the actual or electric cautery has given varying results. Theoretically it is sound, but in practice it offers difficulties.

The next type of discharge, while not seen as frequently as the one just described, is nevertheless common, and one concerning which there is much misunderstanding. The discharge consists of a thin, yellowish, purulent fluid. It is usually very profuse, and in many instances has a peculiarly offensive odor. It causes much itching and burning of the vulva, and this is often the chief reason prompting the patient to seek relief. At times the itching is so great as to prevent sleep by night, and to cause constant discomfort by day. Examination discloses a peculiar lack-luster reddening of the vulval membrane, and in more extreme cases it is sensitive to the touch. Through the speculum, the vaginal walls have the same appearance as the vulva. The discharge puddled in the vaginal fornix often has a slightly frothy appearance, with the presence of small bubbles. A swab of cotton quickly absorbs the fluid and leaves the surface clean. This condition is a vaginitis common between puberty and

the menopause. Virgins and the married are equally susceptible. Primarily it is a mixed infection, the saprophytes and colon bacillus playing an important part, and no organism in particular can be regarded as the specific cause. The reddened vagina exudes a serum which furnishes the medium for bacterial growth, and the irritation and moisture of the discharge exerts a constant influence that prevents spontaneous cure. The condition is comparable to a simple balanitis.

The treatment of this condition is usually undertaken first by the patient herself. Here, again, we find the proprietary douche powders in evidence. A short trial of these, however, soon convinces the sufferer that she has made a mistake, because such a douche will frequently cause smarting at the time of its use, and increased discomfort and discharge following. This failure may then prompt the patient to consult a physician, and he, scenting infection from the appearance and odor of the discharge, does a very natural thing, and prescribes an antiseptic douche. Often his choice will be iodine or lysol, and he may be not a little surprised when his patient returns no better, and probably worse. There may then follow a series of suppository treatments and local applications, all to no purpose. This is an attempt to meet the proper indications by means of wrong practice. The infection can only be controlled in this instance by cutting off the culture medium upon which the bacteria grow. The inflamed vaginal membrane supplies the culture serum. A drying antiseptic powder liberally used, with a dry tampon inserted to keep the vaginal surfaces from contact and to absorb the serum, meets the indications. Such a treatment every other day, supplemented by an antiseptic and mildly astringent douche once or twice daily after the tampon is removed, will give the best results. The vulval irritation is due to the surfaces being bathed in the discharge. This may be relieved by cleanliness, the use of a good talcum and a pleget of cotton placed between the labia to absorb moisture and to keep the surfaces from contact.

The next type of discharge is also a common one and is closely related in symptomatology and treatment to the last described. Its underlying etiology, however, is somewhat different, and this justifies its separate consideration. This type is also an affection of the vagina, but it is seen in women during and after the menopause. These women apply for relief from what is often only a slight discharge, accompanied by a most persistent itching and burning. Examination shows the atrophic appearance of the vulva incident to the menopause, and a reddening, the result of irritation. On inspection of the vagina and cervix, the surfaces are found to be moist. There is a peculiar mottling, consisting of small, bright red points on the paler vaginal surfaces. In the

more extreme cases the vaginal walls and cervix have an appearance not unlike a scarlet fever rash. The discharge itself is of the serous type, and usually moderate in amount. When, as frequently happens, a secondary colon or saphrophytic infection occurs, the discharge presents the same purulent character and offensive odor as the discharge in the vaginitis just described. At times, brownish or even blood tinged discharge may be seen, depending upon the extent of the pathology. These are the cases of atrophic or senile vaginitis.

The underlying pathology is easily understood. As the atrophic process incident to the menopause goes on, the epithelium of the vagina becomes atrophic, and is easily detached. The reddened spots on the vagina seen on inspection are areas where the epithelium has been dislodged, and resulting exposed surfaces exude a serum which is the basis of the discharge. The moisture thus produced macerates the epithelium at other points, and the process becomes a progressive one. If, added to this, there is a secondary infection, as is usually the case, the discomfort of the patient may easily be imagined. As a sequela of such a process, bands and adhesions of vaginal walls to each other and to the cervix are common, and account for such bands not infrequently seen in aged women.

The principles and details of treatment are the same as in the vaginitis of younger women already considered. Keeping the parts dry as possible will relieve the symptoms and cure the pathology. It must be borne in mind, however, that in the nature of things, recurrence is frequent, and these women should be instructed upon the first reappearance of symptoms to return for treatment. There is no class of patients more grateful for relief than these elderly women who have been tortured by the intolerable itching and burning of this condition.

In closing, it may not be out of place to mention more particularly the agents that have been helpful to the writer in the treatment of these discharges. When the silver preparations are indicated, only strong solutions are used. Of the various albuminoid silvers on the market, none has seemed to possess any marked advantage over the others. In endocervicitis with infection, frequent application is important.

The douches have been reduced to three types, the cleansing douche, the astringent douche, and the hot, prolonged douche. As a simple cleansing douche, soda bicarbonate in weak solution serves the purpose admirably. It is of some value as a solvent of mucous, and it counteracts the hyperacidity so often present. As an astringent, zinc chloride is used to the exclusion of all other agents. It is not only astringent, but it is mildly antiseptic. A convenient way for use is to prescribe an ounce of C. P. zinc chloride to eight

ounces of distilled water, two teaspoons of the solution to be used to a quart of water. Often it is of value to direct the patient to precede the zinc chloride by a plain water douche, to clear away any discharge collected in the vagina. For this purpose, soda bicarbonate cannot be used, as it neutralizes the zinc chloride. The hot, prolonged douche, if carried out properly, is very useful in aiding depletion, and is a valuable adjunct. Where a drying powder is indicated, one consisting of equal parts of bismuth subnitrate, calomel and boracic acid, meets all requirements. It should be used liberally in the vault of the vagina and on the vaginal walls. A somewhat elongated tampon is then inserted and allowed to remain from eighteen to thirty-six hours, depending upon the individual case. The powder should be made up freshly, or at least tested often enough to detect any deterioration of the calomel into bichloride. This is a danger that must be kept in mind.

Whether radium will ever be found of value in endocervicitis is still a question. Some reports have been favorable.

The writer again wishes to warn against the use of the curet, and to urge a more careful study of the cases of leucorrhoea that present themselves, to the end that a more rational and successful treatment may be employed.

THE FUNDUS OCULI IN THE TOXEMIAS OF PREGNANCY.*

By J. L. BEHAN, M.D.,

BROOKLYN, N. Y.

FORTY years ago, in advocating for the first time, premature delivery for the prevention of blindness, Loring¹ said, "It has been long known that pregnant women, especially toward the end of gestation, were liable to suffer from a disturbance of vision, which might vary from the slightest deterioration to a total and permanent blindness." Nothing has occurred in all these years which would cause us to change this statement. The same danger confronts the pregnant woman of today.

There has developed, however, in these years, and at that, relatively recently, a method of procedure which not only reduces this danger to a minimum, but at the same time, very considerably reduces the maternal and infant mortality.

Beck² found in his series of 4,500 consecutive cases, prenatally cared for, seven maternal deaths, or .15%; and in 1,000 consecutive cases, an infant mortality of 2.5%. Surely, if so much can be accomplished for the life of the mother and

¹ Loring, E. G.: *Trans. Am. Ophth. Soc.*, p. 423, Vol. 3, 1882.

² Beck, A. C.: *End Results of Prenatal Care. J. A. M. A.*, Vol. 77, 1921.

* Read at the Annual Meeting of the Medical Society of the State of New York, at Albany, April 19, 1922.

child, something can be expected for the prevention of ocular pathology, and the conservation of vision.

It is with this point in mind that I am to present a few examples of what prenatal care may and may not do from the standpoint of ocular morbidity and mortality. It is not my aim to review the eye changes incident to these toxemias, for we are all aware of them; neither is it my object to discuss the cause of the eye change. Whether the toxemia be of the nephritic or hepatic type, without the fetus it cannot exist. So that no matter what the physical condition of the mother may be, or may have been, for the purposes of this paper at least, I consider the toxemia and eye change to be due to the fetus.

Women, who because of antecedent disease, have suffered severe ocular change with resultant marked visual loss, by prenatal care may be spared that ultimate blindness which was to have been their lot had they not had that care.

CASE 1.—Para vi, 37 years of age. Reported to the Prenatal Clinic on October 15, 1920. She had had three spontaneous labors, full term, with live babies. Next a miscarriage in the fourth month (eight years ago). One year later gave birth to a dead fetus in the eighth month. In another year was brought to the hospital in the ambulance, in coma, though not convulsive, and was delivered of an eight months pregnancy, the baby living about two months. Some time later had another miscarriage in the fourth month. Eleven years ago had a bilateral iritis, and since has noticed gradual failing of vision. Ten years ago had a general skin eruption which responded to local treatment. Last pregnancy was six years ago.

She was admitted to the hospital complaining only of shortness of breath and palpitation in the past six months. She was about seven months pregnant. Showed a trace of albumin; blood pressure varied between 125 and 140 systolic; blood and spinal Wasserman negative, with normal colloidal gold curve; blood chemistry normal; functional kidney tests normal.

Each eye presented corneal scars; evidences of old iritis; floating opacities in vitreous; marked degeneration of the retinal vessels; many pigmented areas of an old retinochoroiditis, especially in the periphery; numerous fresh retinal hemorrhages; well marked secondary optic atrophy. She could count fingers at about five feet only in the central field.

Physical examination revealed nothing of further interest. She was put on intensive salvarsan and mercury treatment, still the Wasserman was never returned positive. Two months later it was found that the systolic pressure had reached 160; albumin 3.5 grams, so patient was again admitted to the hospital. The fetal heart was

lost on the evening of the fourth day in the hospital, and in about an hour pains began, with the expulsion of some clots. She delivered a dead fetus in about thirty-six hours.

At this time the ocular examination revealed that the fresh retinal hemorrhages noted two months before had either been absorbed or had degenerated, for no hemorrhages were seen. The general fundus picture was otherwise unchanged in each eye, the vision remained the same.

END CASE REPORT.

This case clearly shows that severe ocular damage, while it may not be improved, can be kept from progressing by prenatal attention, and in such a case the limiting of ocular change is of greater importance than the prevention thereof.

It has been, and still is at times, difficult to impress upon the expectant mother the importance of "watchful waiting." We are fortunate to be able to see the advantage of prenatal care, and the result of ignorance and neglect, set forth in the presentation of one case.

CASE 2.—Para iv, 27 years old. Came to the clinic in her first pregnancy, where, in the eighth month, evidence of nephropathy was discovered. She was admitted to the hospital, and three weeks later gave birth to a living full term baby, leaving the hospital in another two weeks. Her eyes were negative at this time.

Two years later delivered spontaneously at home of a full term live baby, after prenatal care. Apparently medical care ceased with this pregnancy. Two years ago her third pregnancy terminated in a miscarriage at the end of the third month. Seven months later had another miscarriage at about three months.

On May 24, 1921, she walked into the hospital complaining that for two weeks she had vomited four or five times daily, and that in the same period her vision had become cloudy, gradually grew worse, on admission seeing fingers at three feet. Blood pressure 220/150; 9 grams of albumin; phthalein output of 15; hyaline and granular casts; blood urea nitrogen 100, uric acid 10, creatinin 2.3, sugar 88.

The eyes showed papilledema, with swelling less than one diopter; retinal edema not involving the peripheral retina; numerous fresh hemorrhages and large plaques of exudate; marked vascular degeneration.

Physical examination showed, in addition to the chronic glomerular nephritis, a secondary anemia; cardiac hypertrophy with mitral leak, and pericarditis.

She was induced and delivered a six months dead fetus. Remained in the hospital one month, during which time there was some subsidence

of the ocular change, with slight visual improvement.

END CASE REPORT.

Thus we see that with prenatal care this woman was blessed with two children, both still living. She then neglected herself, but luck was still with her, for her next two pregnancies terminated in their incipency. During this time her vision caused her no concern, but then came her punishment, her next pregnancy went six months, and she went practically blind. How much better off she would have been had she kept her faith in her physicians. We cannot say that prenatal care would have presented her with three more children, or that it would have prevented ocular disease, but at least it would have insisted that she had had enough pregnancies.

I am convinced that pre and postnatal care does prevent the occurrence of ocular disease. In the Long Island College Hospital all the pregnant women do not undergo a routine eye examination, for obvious reasons. In the maternity clinic, only those who have visual complaint are examined. In the hospital all toxemias are examined. In these toxemias, approximately 5% show fundus change, usually not severe and of temporary duration. In none of our prenataally cared for have we had serious or permanent ocular disease develop. We have had serious ocular damage, but invariably it has occurred in cases brought in on the ambulance after family remedies, or the midwife, has failed.

However, prenatal care is not infallible. Even under most careful supervision a pregnancy may terminate fatally, or vision may be lost. It may not prevent the occurrence of serious ocular pathology, but when ocular disease does arise, it may allow the prolongation of the pregnancy to such an extent that not only does the eye recover, but also the mother to enjoy her sight and a living baby.

CASE 3.—Patient of Dr. Eliot Bishop. A primipara, aged 30. Revealed nothing in her history or examination to indicate a nephritis. Her pregnancy had been normal until the seventh month, when she developed hypertension and albuminuria, and at the same time a retrobulbar neuritis in the left eye with the presence of a complete central scotoma, the fundus of each eye appearing normal. The toxemia was controlled by dietary measures and rest in bed, the scotoma clearing up completely in about three weeks, no change being noted in the fundi during this time.

At the eighth month an increase in hypertension and albuminuria, with the development of a marked and fairly generalized edema caused the patient to be admitted to the Brooklyn Hos-

pital on February 14, 1922. Vision was reduced in each eye to questionable form perception. Each fundus showed papilledema of one diopter; engorged veins; retinal edema which was greatest surrounding the disc and fading off toward the periphery, where the retina was apparently normal; many plaques of exudate, some overlying the vessels, and most numerous between the macula and the disc; only one or two retinal hemorrhages were noted.

Termination of the pregnancy was completed, but following this, as is contrary to custom in these cases, the hypertension and albuminuria continued, although the edema subsided. Kidney function was normal as judged by the elimination, functional tests, and normal blood chemistry.

On the tenth day postpartum the patient developed a left hemiplegia, including involvement of the left sixth and seventh nerves. No change, with the exception possibly of a slight increase in the disc swelling, was noted in the fundi. In a week she was able to recognize visitors.

Three weeks later the fundi showed that the retinal edema had subsided to only a slight degree immediately surrounding the discs, and that the star-shaped figure had appeared in each macula. Her vision had so improved as to allow her to read the ordinary news print.

At the present time the baby, who weighed four pounds at birth, weighs eight, and is thriving. Although the mother is not yet able to do the family wash, there is no evidence of the hemiplegia, the central vision is normal and the ocular motions normal. There is no retinal edema, no hemorrhage, no disc swelling, the exudates are disappearing, the star shaped figure in the macula remains.

END CASE REPORT.

As part of the routine prenatal care there should be made at least one ophthalmoscopic examination. I do not mean to imply that the fundus will reveal evidence of a toxemia or nephritis that was not capable of recognition before by the usual clinical methods. Albuminuria and hypertension are always discoverable in these cases before the eye shows any change. In some doubtful cases the presence of some chronic fundus change may establish the probability of a chronic nephritis.

I do not urge that obstetricians become versed in the use of the ophthalmoscope. If they want to tinker with it, no harm is done. The fact that there are so many deviations from the normal type of fundus, that border on the pathological without becoming so, brings up the warning, "Every man to his trade."

POST-MORTEM FINDINGS IN THE NEW BORN.*

By HUGH C. McDOWELL, M.D.,
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IN bringing to your attention the causation of stillborn babies I am including those cases which died within ten days from delivery. This series of cases was delivered by version and include those reported by Dr. Potter and myself. I wish to express my sincere thanks to Drs. Roman and Jacobs for their co-operation and help in working up these cases.

In looking up the literature of this subject, I have been struck by the meagerness of the reports of the causes of stillborn, and it is not until recent years that there has been a persistent effort on the part of some workers to ferret out and report their findings. We are inclined to get everything over with in these cases, in which we get a stillborn baby; and are reluctant to impress upon the parents the necessity of a post mortem. Whether it is because we feel that we are a causative factor or whether we are afraid of the results of our investigation, the fact remains that every effort should be made to obtain a post mortem in all cases of stillborn. At this point, I would like to make a plea for a better and more complete investigation into these cases, and the only way that this can be done is by persistent effort of the man who, shall I say, occasionally gets a stillborn. Now for the grouping of the causes of stillborn, I make the following general classification:

Those due to foetal circumstances and those due to maternal circumstances.

In taking up those due to foetal circumstances, the first and foremost condition which we meet are the cord complications. A great amount of emphasis should be placed upon this condition. The cord complications are grouped as follows:

The prolapsed cord and the concealed prolapsed cord, such as one encounters between the head of the foetus and the pelvic brim. The prolapsed cord may occur in conjunction with one or more extremities of the foetus. The third type is a short cord, and there are two types; the true short cord which when labor starts up is not of sufficient length to allow the foetus to be born without being stretched, distorted and twisted, thereby shutting off the foetal circulation. The artificial short cord is produced by being wound round the neck of the child anywhere from one to five times, or wrapped around the neck and arm, or around the body, or one or more of the extremities. I believe that not enough stress has been laid upon the factor of cord complication and the reason we see this so frequently is because a thorough exploratory examination of the uterus

with a child in it has taught us that the cord is involved in a great many complications.

The second phase of this examination has revealed abnormalities in the foetus itself; such as absence of the diaphragm with congenital deficiency of the lungs, congenital heart, enlarged thyroid, enlarged thymus, hydrocephalus, acrania, spina bifida, stenosis of the intestinal tract and hemorrhages of the different foetal organs. These causes appertain to the foetus. There may be conditions that are caused by delivery of the foetus, which, of course I shall group as maternal causes.

The maternal causes are toxæmia pregnancy, syphilis, different kidney lesions, chorea, tumors of the uterus—fibroid and cancer, and lastly valvular heart trouble, the deformed pelvises, and under this head we group all the types, the rethritis, the funal and general contracted. It is a well known factor that the passage of the foetus through a deformed pelvis is attended with a serious possibility in many cases to the foetus. The long labor with the foetal head pounding at the inlet, or through a narrow birth canal, or moulding itself over a projecting promontory gives rise to foetal hemorrhages, principally cerebral.

In these cases I shall attempt to show that by shortening the labor there has been fewer stillborn children and the hemorrhagic conditions found in the new born have been lessened.

In order to arrive at a definite comparison, figures are at times somewhat absurd, but the only way to make a true comparison was to take the published figures of those who have done the greatest amount of work on stillborns, and accordingly I have hoped that we may arrive at some definite conclusions on the methods of delivery of the foetus and the attending results.

In the prolongation of the second stage of labor the foetal mortality increases each hour. It has been found that primipara with the second stage of one hour furnished 8 per cent of the foetal deaths, in over two hours, 18.3-10 per cent, while for multipara the average is one-third less. Veit, in a series of 2,550 vertex cases in which the second stage lasted two hours or more, found that in the two hour cases 18.32 per cent were born asphyxiated. 1.7 per cent were stillborn and 5.5 per cent died later. Among the four hour cases 49.65 per cent were asphyxiated. 5.59 per cent were stillborn and 6.22 per cent died during the next few days. Statistics also show us that the transverse presentation is a most dangerous type attended with a mortality rate of 39 per cent. Moreover in the vertex cases it is just as important to guard against too great a compression of the head as against excessive prolongation of labor; for while compression of the skull and the absence of brain injury does not of itself produce death, it may directly contribute so as to bring about paralysis of the respiratory center. Cere-

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bral compression may be regarded as a determining factor in asphyxiation of the baby, also maternal coma, lung, oedema, spasms of the respiratory muscles, premature separation of the normally implanted placenta and placenta-*previa*, all result in foetal suffocation.

Of 3,000 deliveries reported at the Women's Hospital in New York the foetal mortality was 4.6 per cent. There was a total of 183 foetal deaths of which 49.2 per cent were stillborn. The following summary shows the probable causes of death in the 68 cases of stillborn:

Birth trauma 38, prolapsed cord 4, placenta *praevia* 7, toxæmia 18, foetal abnormalities 2, craniotomies 3.

Of the birth traumas 16 were due to forceps. 70 foetal deaths were due to prematurity, pneumonia, toxæmia, intracranial hemorrhages, cerebral hemorrhages and abnormalities in the foetus. The greatest cause of still births was toxæmia of the mother. Those cases dying after delivery, cerebral hemorrhages were the most common cause.

Prof. Cauvelaire of Paris investigating the number of still births of France gives the following figures for the year 1920: The foetal mortality rate for the whole of France was 4.6 per cent. The mortality rate of Paris alone was 7.2 per cent. In a series of 1,789 cases of stillborn investigated, syphilis was given as the cause of 653 deaths. 346 cases were due to toxæmia of pregnancy.

In the Glasgow Maternity Hospital an analysis of the foetal deaths presents the following: 63 died as the result of diseases and complications of pregnancy, and 42 as result of complications of labor. Dr. Charles S. Miller of Philadelphia states that two per cent of all foetal deaths is due to premature births. Dr. Williams in a series of 4,547 cases reports the number of stillborns as 302, a little more than six per cent. Syphilis was responsible for 34.4 per cent; trauma was given as 28 per cent and miscellaneous as 38 per cent. His mortality for syphilis is high. In Buffalo this ratio does not hold due to the fact that at the present day the community is antesyphilised to the nth degree.

Dr. DeLee of Chicago thinks that the foetal mortality in occiput posterior positions that do not rotate anterior is still very high. He believes that more deaths are due to this condition rather than a contracted pelvis. Primipara extraction is sometimes a cause of foetal death.

Dr. Brown of the Edinburgh Royal Maternity Hospital reports 200 consecutive cases of stillborn. Asphyxia neonatorum was the cause of 40 per cent of the deaths. There was 22 mascerated foetii. Cause not stated. There were 59 cases of cerebral hemorrhages or 29.5 per cent. The cause of cerebral hemorrhages in these cases were either contracted pelvis or excessive size

of the child. It is interesting to know that in 59 cases of cerebral hemorrhages 20 were breech cases, 39 were vertex cases of which 17 were forceps and 22 non-forceps. Cerebral hemorrhages of the non-forceps cases occur in premature infants showing that the resisting power of the undeveloped skull is lower in these type of cases. About 37 per cent of the cerebral hemorrhages were due to a torn tentorium. Syphilis was the cause of death in 35 cases in this series. Supra-renal hemorrhage is given as the cause of death in 18 cases.

Of late years there has been tendency to prove that the foetus could sicken independent of the mother and die before birth or shortly thereafter. It is possible for the foetus to have a streptococcus septicæmia independent of its mother and it has been possible to isolate the pneumococcus in the new born babe's nostril. We have been taking temperatures in the Version cases of newborn babes before delivery, and have found on many occasions that the baby ran a temperature considerably above normal while that of the mother was normal showing that the foetus may carry a low grade infection while in utero. Another idea held forth is that a chronic microbic endometritis may exist and that the ovum implanted in such endometrium could become infected and die is not very far fetched. There are cases on record of foetii acquiring smallpox and scarlet fever.

Slemons has shown that the bacteria from the cavity of the ovum wander through the amion into the foetal blood vessels. There are three ways in which infection can reach the ovum, by the blood stream, from the appendix, pus tube and infected fibroid or infection up from the cervix. He reports three cases where the foetus died through this manner of infection. It seems therefore we may have infection of the foetus independent of the mother.

Dr. Williams in a series of four thousand cases with 302 foetal deaths approximately 6 per cent foetal mortality places syphilis first as the causes of death of which there were 104 cases. Dystosia 46 cases; toxæmia 35; prematurity 32; causes unknown 26. Placentapraevia and premature separation of the placenta 16. Pelvic deformity 11, and eleven causes 32. Syphilis ranks first as the cause of foetal death. Dystosia comes next and toxæmia pregnancy ranks third.

Warwick in a series of 200 cases gives the following findings:

136 cases had a complete post mortem; of these 7½ per cent were due to trauma; 44 per cent to cerebral hemorrhages; 20½ per cent due to hemorrhagic diseases; 15 per cent were due to malformations; 3½ per cent due to birth injuries. Syphilis caused 9½ per cent and acute infections caused 3½ per cent. The conclusions of the author are as follows: Cerebral hemorrhage is the most common condition of the newborn.

occurring from 43 to 50 per cent of those examined. Hemorrhagic diseases of the newborn is also a frequent finding and is often associated with cerebral hemorrhages. Malformation occurred in 15 per cent. Acute infections were rare, bronchopneumonia being the most common.

At present there seems to be a wide variance in the cause of foetal deaths, but recent workers are in accord that hemorrhagic conditions are placed foremost. We believe that these hemorrhagic conditions are due to the lessening of the clotting power of the foetal blood due to uterine pressure which interferes with the proper circulation of the foetal stream either from general pressure on the foetus itself or interference with circulation in the cord.

The series of 30 cases in this report are classified under several different groupings. It is rather difficult to specify definitely in some cases the cause of death, so I have taken first what might be termed maternal factors as contributing causes in the death of the foetus.

Maternal Causes—Fibroid of the uterus, 2 cases; contracted pelvis, 18 cases; toxæmia mother, 1 case; nephritic diseases, 4 cases; pelvic tumor mother, 1 case; syphilis, 1 case.

The second grouping is under the foetal causes. First and foremost we place the abnormal positions of the child, such as persistent posterior positions of the head; face and breech presentations in the primipara.

Secondly, abnormalities of the cord, such as prolapsed cord, 2 cases; short cord, 2 cases; torsion of cord, 1 case.

Placental Causes—Infraction, 1 case; abscess of placenta, 1 case; premature separation of placenta at term, 2 cases; placenta prævia, 2 cases; infection of foetus, pneumonia, 2 cases; syphilis, 1 case; meningitis, 1 case; congenital deficiency of organs, 1 case; enlargement of thyroid and thymus gland, 3 cases; monsters such as spina bifida, hydrocephalus, accrania, meningocele, 7 cases.

Under the next headings are found, as revealed by post mortem in 30 cases, the anatomical diagnosis of the foetus at autopsy. Of these hemorrhagic conditions stand out foremost, either associated with some condition which causes the death of the foetus or as a direct cause of death in the foetus itself. At the head of the list is placed pulmonary hemorrhages which was seen in 7 cases, two associated with pneumonia. Suprarenal hemorrhages were revealed in 10 cases. Uric acid and infarction of the kidney, 2 cases.

Sub-dural hemorrhages, 2 cases; cerebral hemorrhages, 3 cases; meningeal injection, 2 cases; cerebral embolism air, 1 case; pericardial and sub-peritoneal hemorrhages, 2 cases; congenital deficiency of left diaphragm, right and left lung, with stomach, spleen and bowel, in chest, 1 case;

intrauterine asphyxia, 5 cases; birth injuries to child, fractured skull, 2 cases; fracture of vertebrae, 1 case; perforated skull, 2 cases; spina bifida, 2 cases; meningocele (sac about the size of grapefruit), 1 case; tentorium cerebelli torn, 4 cases; hydronephrosis, 1 case; enlarged suprarenals, 1 case; hydrocephalous, 2 cases; hemorrhagic disthesis, 2 cases.

A further grouping of these cases will reveal that 23½ per cent showed pulmonary hemorrhages. 13⅓ per cent showed brain hemorrhages. 35⅓ per cent suprarenal hemorrhages. These hemorrhagic conditions were not in themselves causes of death. They were associated with external influences which were the direct cause, such as prolapsed cord, premature separation of the placenta, intrauterine asphyxiated due to prolapsed cord or pressure on the cord. One case of fractured skull was the cause of death and one case in which there was a linear fracture of the skull exerted no influence upon the cause of death. I believe that in every case in which there is a torn tentorium that it is a result of misdirected pressure upon the foetal head and is a direct cause of the foetal death. There is no question but that this is a cause of a great many cases of paralysis from birth. It would seem that these hemorrhagic conditions are a result of increasing the clotting time of the blood due to external pressure applied upon the foetus either through the cord or the baby itself. Toxæmia of the mother or infectious diseases may produce these hemorrhagic conditions, prolonged labor unquestionably through the lowering of the vitality of the foetus and continued pressure upon the body produces hemorrhagic conditions. We expect to be able to report lessening of the clotting time of the foetal blood and thereby hope to lower the present percentage of hemorrhagic conditions. It would appear that by shortening labor we may be able to lessen hemorrhagic conditions in the newborn. We have reduced our intracranial to about 13⅓ per cent. The average is 29 to 50 per cent. Another feature which these post mortems have revealed is that in the cases of spina bifida, hydrocephalus and abnormalities of the cranium we find changes in the internal secretory glands. It seems that there is a direct ratio of abnormality between the development of the foetus and these glands. Another observation is that pressure upon the body of the foetus may be as great as that upon the foetal head. Anyone who has had his hand in the uterus realizes and appreciates the tremendous amount of pressure brought to bear upon the body of the child by having his hand so cramped that it is almost impossible to move one's fingers.

Outside of the extraneous condition, such as prolapsed cord, placenta prævia, toxæmia of pregnancy, premature separation of the placenta, we believe that the greatest cause of foetal death

is due to pressure either on the cord or the foetus itself, thereby giving us our cases of interuterine asphyxiation. Syphilis is revealed in only one case of this series, which is proof in our minds with three macerated foetus, syphilis is rarely the cause of foetal death in Buffalo. I know this statement will probably be challenged due to the fact that in all cases of macerated foeti, we primarily thought of syphilis.

Conclusions—In reporting these cases of still-born of which all were delivered by version we find that among our greatest causes of death are prolapsed cord and placenta complications, hemorrhagic conditions in the foetus, abnormalities of the foetus, and infectious disease of the foetus. Hemorrhagic conditions in most instances are the result of cord complication accompanied with asphyxia neonatorum and placenta complications. Syphilis rarely causes death of the foetus and by reducing the length of time required for the foetal head to pass through the pelvis we have decreased cerebral hemorrhages. Through this method of delivery we have eliminated the mutilating operations of the child. It is impossible to correctly diagnose the cause of death of the still-born child without knowing the maternal and foetal circumstances and a complete post mortem of the foetus and examination of the placenta. By the elimination of forceps we have reduced the number of birth injuries. That in order to still further decrease our mortality rate of 2.3 we must devise some means of lowering the hemorrhagic development in these cases or find some method of decreasing the clotting time in the foetus. In another year we hope to have some definite information along this line.

BLEEDING AND COAGULATION IN THE FIRST WEEK OF LIFE.*

By DeWITT H. SHERMAN, M.D.,
and
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THE new-born infant often suffers from ruptures of the smaller vessels and effusion of blood into the tissues. In every birth there is a certain amount of venous congestion, and the greater the asphyxia, the greater the amount of congestion, and secondarily, the greater the tendency to minute hemorrhages. When the congestion ceases these minute hemorrhages cease, and if there has been no destruction of tissue, the effused blood is absorbed without any resulting damage.

The congestive ecchymoses are mostly capillary, and even if the congestion is long-continued, the amount of extravasation is slight. They are scattered through the various organs and tissues

of the body, and most of them are of no serious pathological importance, but in the brain they are more apt to cause trouble. It is the extent of the resulting structural damage that is of the greatest importance.

In the brain they are usually found as leptomeningeal hemorrhages, and the cell damage is in direct proportion to the number and extent of the hemorrhages. Their site is marked by an interstitial encephalitis, and the symptoms of the damage done depend upon the location of the hemorrhages.

The immediate danger of birth hemorrhage ends with the first day, but its results may not appear till much later in life.

If associated with this birth congestion and birth hemorrhage there is added a blood dyscrasia, a so-called hemorrhagic diathesis, the fundamental or casual factors assume an entirely different aspect. It is to this blood dyscrasia that I wish to call your attention, for up to recently too little consideration in hemorrhagic birth accidents has been given to possible blood abnormalities of the infant. We have been content to define these accidents as due to trauma, fragile blood vessels as in prematurity, and sometimes to sepsis, etc., etc. While these causes often prevail, the lack of clotting ability of the infant's blood can be an important factor in the extent of the hemorrhage.

From recent studies of the coagulation and bleeding time of apparently normal infants, some new facts have been learned. Lucas and his associates at the Hooper Foundation, in studying the physiology of the blood of the new-born, learned that the clotting and bleeding time, *even in the normal*, were apt to vary considerably during the first ten days. After the second or third day they found that during the next two to four days there was a period in which the clotting and bleeding time was considerably prolonged, and from the end of that period there was a gradual return to normal. They learned that the delayed clotting time was due to a lack of prothrombin in the blood, the same blood abnormality which they were able to demonstrate was present, but in a greater degree, in some forms of hemorrhagic diathesis, such as malæna neonatorum. They demonstrated that a temporary hæmophilia occasionally occurred in normal infants from the second to the sixth day, a point of considerable value to be remembered in operating upon the new-born, whether it be for cleft-palate, hair-lip, or even circumcision.

Rhodda devised a simple clinical method for studying the clotting and bleeding time, and also came to the conclusion that there was a prolongation of the clotting and bleeding time from the second to the fifth day in many infants, and that this delay was sometimes great enough to become pathological. He laid great stress upon this blood

* Read at the Annual Meeting of the Medical Society of the State of New York, at Albany, April 19, 1922.

dyscrasia, and noted a prompt return to normal in several cases of cerebral hemorrhage following the subcutaneous injection of human blood.

While the persistence in the bleeding appears to be due to a lack of prothrombin in the blood, there is as yet no known cause for its deficiency.

Rhodda shows by his method that the average coagulation time of the newly-born is seven minutes, with a usual range of from five to nine or ten minutes. The bleeding time, using Duke's method, averages three and one-half minutes, the normal range in the newly born being two to five minutes. Both methods should be utilized in studying the blood if we wish to avail ourselves of all the measures at our command at present.

At the Buffalo General Hospital, under the direction of Dr. Benjamin Roman, we have begun a study of the blood in infants. As a preliminary step we are checking up the work of Lucas and Rhodda and adding further clinical data to their efforts to answer the two following questions:

1. How many infants show a blood dyscrasia as manifested by a prolonged bleeding and clotting time?

2. What is the connection, if any, between cerebral hemorrhage and a prolonged bleeding and clotting time?

We have selected the technique as described by Dr. F. C. Rhodda of Minneapolis for this work. His method is:

"The apparatus required consists of a spring lancet (a simple scalpel will suffice), two one and a half inch watch glasses, and No. 6 lead shot. . . . Glass and shot should be cleaned, preferably by washing with soap and water, followed by alcohol and water. Needless to state, the lancet should be sterile, which implies freedom from old blood. The heel of the infant is sponged with ether, a puncture is made with the lancet blade set (about 0.5 cm.) to produce a free flow of blood without the slightest pressure. A clean watch glass containing No. 6 shot receives the second drop of blood. A second watch glass is inverted over the first. The watch glasses are gently tilted every thirty seconds until the shot no longer rolls, but is fixed in the clot."

The lancet puncture shows the bleeding time, and the enmeshing of the shot in the fibrin formed shows the clotting time.

Our series comprises one hundred cases, and the bleeding and clotting time was taken daily for five days.

The work was done by three different internes, and in comparing the results of each we found that the greatest variations occurred in taking the clotting time. In twelve consecutive cases we found the bleeding and clotting time were much shorter than the average, and upon investigation discovered that the blade of the stylet was dull. The dullness naturally produced a tissue trauma, which would shorten the bleeding and clotting time.

To be of any value Rhodda's technique must be followed accurately, for otherwise the tabulation of the readings will be misleading, in that the time of the bleeding and clotting will be shortened.

If we accept Rhodda's figure of nine minutes for the upper limit as the normal clotting time, and five minutes for the bleeding time, we have in this series of one hundred cases, twelve in which the clotting time was prolonged, and twenty-eight cases in which the bleeding time was prolonged.

Clotting		Bleeding	
Cases	Minutes	Cases	Minutes
1	10	9	6
4	11	5	7
1	12	5	8
1	13	1	9
2	14	1	10
2	15	2	11
1	16	1	13
—		1	23
12		1	25
		2	hour
		—	
		28	

In a large number of our cases there appears to be a slight prolongation on the second, third, and fourth day. In two cases the bleeding continued for hours.

In this series there has been only one case of cerebral hemorrhage. This infant had a bleeding time, on the second day, of ten minutes, and a clotting time of fifteen minutes. It was given 10 cc. of whole blood subcutaneously, and the next day the bleeding time was three minutes, and the clotting time six minutes. It made a complete recovery. Two other cases of cerebral hemorrhage which are not included in this series were studied. One case, which came to autopsy, showed a complete tear of the tentorium. In this case the bleeding and clotting time were within normal limit. The other case, which showed clinical symptoms of a massive hemorrhage, had persistent bleeding from a slight wound on the ear. Whole blood, injected subcutaneously, stopped the wound bleeding. The infant died. No autopsy.

Conclusions:

We realize that one hundred cases are far too few from which to draw definite conclusions, but as the work will be continued, we hope to be able later to report upon a larger number, and upon other phases of the problem.

From the work of others and from the results obtained in our series, certain facts present themselves. It has been demonstrated that we have a definite blood dyscrasia in the new-born, characterized by interference with the normal clotting of the blood. This condition is not due to immature development, since it is not usually present at birth, but develops on the second or

third day. It is not more frequent in the premature than in the full term infant.

This condition of hemophilia is a temporary one. It subsides before the tenth day. It is fairly frequent, being present in 28% of our cases. It varies in degree, from those showing slight change to those in which the bleeding is almost indefinite. It is characterized by prolonged bleeding time rather than by prolonged clotting time. This suggests the possibility that we are dealing with two different conditions; one in which there is failure in the clotting process, and the other in which the fault lies in the vessel itself. Although the blood clots, there is something lacking in the clot, which causes it to fail to adhere to the vessel wall and by its contraction to seal the vessel.

The etiology is not known. In a few cases studied by others, the blood platelets appear to be normal in number, yet the prothrombin appears to be deficient. Just what part the liver may play for the production or synthesis of the various factors involved in the coagulation of blood is not known. It is suggested that there may be sufficient change in the liver function, owing to the change of circulation from the fetal to the mature, to be responsible for the hemorrhagic diseases of the new-born. This suggestion is based on the known fact that phosphorus and chloroform may damage the liver sufficiently to cause hemorrhage. In these cases the fibrinogen, which is found particularly in the liver, may be markedly wanting, decreased enough to prevent *firm* clot formation rather than to lengthen the coagulation time to any great extent.

The great clinical importance of this subject lies in its connection with cerebral hemorrhage. In an infant with a tendency to bleed, even a slight trauma may be sufficient to cause a hemorrhage that may be serious, even fatal. This connection has yet to be proven by careful autopsy reports.

Surgeons should insist upon a clotting and bleeding time before operating upon every infant during the first ten days of its life.

TYPES OF PNEUMOCOCCI FOUND IN PNEUMONIA OF INFANTS AND YOUNG CHILDREN.*

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(From the Laboratory of the Babies' Hospital.)

IN 1913 the work of Dochez and Gillespie¹ demonstrated the fact that pneumococci fall into four groups. Since then many corroborative studies on pneumococci isolated from adult pneumonia patients have been made. Consequently in 1920, Cole² made the authoritative statement that pneumococci of the first type are

found in 33 per cent of lobar pneumonia cases, the second type in 25 per cent, atypical strains of the second type in 7 per cent, the third type in 12 per cent, and only in 22 per cent of adult lobar pneumonia patients are pneumococcus strains of the heterogeneous fourth group found.

In the case of the pneumonias of infants and young children, however, the problem has not been definitely solved and a further study seemed justified.

At the Babies' Hospital during the past winter, from November 1st to May 1st, 214 sputum cultures were studied in 141 children, of whom eighty-seven had pneumonia, sixteen had bronchitis, five had tuberculosis and thirty-three were controls free from respiratory disease. The ages of these children ranged from three weeks to three years. Sixty-seven were in the first year of life, fifty-five in the second year, and only nineteen were over two years old. That is, this series of pneumonias studied at the Babies' Hospital comprised only infants and young children.

TECHNIC.

To puncture the lung substance in young children where the areas of consolidation are apt to be scattered is a procedure not devoid of danger, and pneumothorax may result. Consequently as a routine measure it can not be considered, and specimens of sputum only are available for study. Such specimens are readily obtainable, even in the youngest infants, with a minimum danger of mouth, saliva or food contamination. Our procedure was to wait two hours after the child had been fed and then induce coughing by touching the posterior pharyngeal wall with a sterile swab. The bronchial mucus coughed up is caught on the swab as it emerges from the larynx, and is at once planted on blood agar plates, over which it is spread with a fresh sterile swab. Single colonies are readily found after twenty-four hours' incubation, and can then be examined and transplanted into blood broth for further study in inulin, bile and specific sera. Mice were not used in our study for isolation of pneumococci because time saving was not a factor, since serum treatment was scarcely indicated. The doubt as to whether the organisms found in the sputum were also present in the lung was proved to be groundless by autopsy examinations, where the results of cultures from the lung substance paralleled those from the sputum during life.

BRONCHOPNEUMONIA

Lobar pneumonia is uncommon in the first two years of life and in this series no case merited that diagnosis in the opinion of the clinical staff of the hospital.

In the eighty-seven cases of bronchopneumonia, of which sixteen were complicated by empyema, the bacteriological results were both varied and

* Read at the Annual Meeting of the Medical Society of the State of New York, at Albany, April 18, 1922.

interesting. Type I pneumococcus was found in three cases; Type II in seven cases; Type III not at all; Group IV in fifty-four cases. It will be seen that fixed types of pneumococci were present in ten of eighty-seven cases of bronchopneumonia in young infants and Group IV in fifty-four cases. In twenty-three cases no pneumococci were found. Streptococci were present in thirteen cases and staphylococci in ten. The Pfeiffer bacillus, which was never present in pure culture, accompanied the cocci in nineteen instances.

Two of the children in whose sputum type I pneumococci were found were twins, seventeen months old. The girl entered the hospital two weeks before the boy. Both recovered. In an effort to trace the source of contagion in these infants the rest of the family, consisting of the mother and three older children, were examined. All were coughing. Pneumococci belonging to Group IV were isolated from the mother and two children, one of whom carried Pfeiffer bacillus as well. The third child, seven years old, carried Type I pneumococci and Pfeiffer bacilli in her sputum. The mother stated that this girl had been ill with pneumonia about two months before. She had evidently remained a carrier since that time, and had infected the infants, in whose care she took part. Avery³ found that adults, after an attack of lobar pneumonia, may carry the fixed type which was the etiological factor in the pneumonia for a period varying from twelve to ninety days.

Type II pneumococci were found in eight children, of whom two were sisters nine months old. One had only a bronchitis from which she recovered, the other had a pneumonia which also resolved. The mother of these children was ill and could not be examined at the time. Four children with Type II pneumococci died, while three developed empyema.

Twenty-four of the eighty-seven pneumonia patients died: four with Type II pneumococci, fourteen with Group IV pneumococci, two with staphylococcus aureus in pure culture, three with streptococcus hæmolyticus, and one with streptococcus viridans in their sputa.

Pure cultures were found in forty-seven cases, of whom twelve died:

	No.	Died
Type I pneumococcus in.....	3	0
Type II pneumococcus in.....	6	4
Group IV pneumococcus in.....	22	4
Staphylococcus aureus in.....	8	2
Streptococcus hæmolyticus in.....	2	1
Streptococcus viridans in.....	6	1
	<hr/>	<hr/>
	47	12

Mixed cultures were found in forty cases, of whom twelve died:

	No.	Died
Type II and staphylococcus aureus.....	1	0
Group IV and staphylococcus aureus.....	5	0
Group IV and streptococcus hæmolyticus..	6	2
Group IV and streptococcus viridans.....	7	1
Group IV and Pfeiffer bacillus.....	14	7
Streptococcus viridans and Pfeiffer bacillus	2	0
Streptococcus hæmolyticus and staphylococcus aureus	2	1
Streptococcus hæmolyticus and Pfeiffer bacillus	1	1
Staphylococcus aureus and Pfeiffer bacillus	2	0
	<hr/>	<hr/>
	40	12

There were eight children between one month and twenty months of age who had a bronchopneumonia from which only staphylococcus aureus was grown. Two of these died, one and ten months old respectively. Two other children who recovered had Pfeiffer bacilli in addition to staphylococcus aureus in the sputum. The death rate among infants with this type of infection is not as high as it has been found by Chickering³ in adults.

Streptococcus hæmolyticus was found in eleven instances, only six times with pneumococci, twice in pure culture, twice with staphylococcus aureus and once with the Pfeiffer bacillus. Five of these infants died.

Streptococcus viridans, present in fifteen cases, was found in pure culture six times, with the Pfeiffer bacillus twice, and with Group IV pneumococcus seven times. Only two of these infants died, having developed an empyema.

EMPYEMA.

Empyema complicated seventeen of the eighty-seven cases of bronchopneumonia. The empyema patients ranged from two and one-half months to three years old, and seven died. Type I pneumococcus was present in pure culture in the pus of one empyema case who recovered. Type II was present in pure culture in the pus of three cases of empyema, of whom two died. B. Pfeiffer was present in pure culture in the pus of one case of empyema who recovered. Staphylococcus aureus was present in pure culture in the pus of two cases of empyema, and both recovered. Streptococcus hæmolyticus was present in pure culture in the pus of two cases of empyema, of whom one died. Streptococcus viridans was present in pure culture in the pus of five cases of empyema, and two died. Group IV pneumococcus with staphylococcus aureus was present in the pus of two cases of empyema who recovered. Group IV pneumococcus was present in pure culture in the pus of one case of empyema, who died.

In this small series of empyemata, the Type II pneumococcus and the streptococcus infections proved most fatal, while staphylococcus aureus,

Group IV pneumococcus and Pfeiffer bacillus infections tended to recover.

BRONCHITIS.

In the bronchitis cases Type II pneumococcus with staphylococcus aureus was present in one instance. Group IV pneumococcus was found in thirteen cases, in pure culture seven times. Only in two children with bronchitis were no pneumococci present in the sputum, and the infecting organism was staphylococcus aureus. One of the children in the bronchitis series died of Pfeiffer bacillus meningitis, and another of Group IV pneumococcus meningitis.

CONTROL CASES.

The results in the thirty-three control children are interesting. No pneumococci were present in twenty-one cases. Group IV pneumococci were found in pure culture in only one instance, that of a three-months-old boy with hypertrophic pyloric stenosis, who had no respiratory symptoms. After an interval of two weeks his sputum still contained a pure culture of Group IV pneumococcus. In one case B. Pfeiffer was present with the pneumococcus, and in another case streptococcus viridans was found.

Pneumococci were present in $36\frac{2}{3}$ per cent of the thirty-three controls who had no signs of disease of the respiratory tract. Pneumococci were present in $87\frac{1}{2}$ per cent of the sixteen children suffering from bronchitis, and in 73 per cent of eighty-seven cases of pneumonia. While the pneumococci present in the control children all belonged to Group IV, one of the bronchitis cases was caused by Type II pneumococci and in thirteen bronchitis cases the cocci found belonged to Group IV. In the eighty-seven pneumonia cases Group IV pneumococci were present in 62 per cent; Type II in 8 per cent; and Type I in $3\frac{1}{4}$ per cent. The lower incidence of pneumococci in the sputum of infants not suffering from respiratory infection is evident, as is the presence of fixed types in cases of pneumonia, the rarity of these types in cases of bronchitis and their absence from the sputum of young children with a normal respiratory tract.

MORTALITY.

Type I pneumococcus caused no fatalities, but empyema followed in one of three cases. In adults it causes 25 to 30 per cent fatalities. Type II pneumococcus caused a mortality of 55 per cent and empyema followed the pneumonia in 43 per cent of the cases caused by this type of pneumococcus. In adults 25 to 30 per cent of Type II infections prove fatal. The mortality rate of the Group IV cases was 26 per cent in this series and empyema followed in only $5\frac{1}{2}$ per cent. In adults only 15 to 20 per cent die in this type of pneumococcus cases.

Four other cases of infection with Type I pneumococcus occurred during the winter, as follows:

CASE I.—Girl, $3\frac{1}{4}$ years old, entered the hospital with symptoms of general peritonitis and died a few hours after operation. Type I pneumococcus was grown from the peritoneal pus at operation, and from the heart's blood and pleural exudate at autopsy.

CASE II.—Girl, $2\frac{1}{4}$ years old, was admitted in a moribund condition and died within a few hours with symptoms of pericarditis. Autopsy was refused, but post-mortem cultures from the pericardial fluid and from the blood gave pure growths of type I pneumococcus.

CASE III and CASE IV were sisters, aged $5\frac{1}{2}$ and $3\frac{1}{2}$ years. The older child had a double empyema. The younger had a frank bronchopneumonia and a few cc. of turbid serum were obtained from the right pleural cavity. From these three pleural exudates and from the sputum of both children, Type I pneumococci were grown.

Were these four cases considered with the three which are included in the paper, the resulting group of seven would include four children under three years of age and three over three years. The mortality rate in the younger group would be 25 per cent, which is similar to the adult mortality in Type I cases. The older group would show a mortality of $33\frac{1}{3}$ per cent, which is slightly above the rate for adults.

Four previous studies of pneumococcus types in the pneumonias of children have been recorded, and a comparison is of interest. In 1916 Pisek and Pease⁴ studied forty-eight cases of children under six years old and found Type I in 23 per cent, Type II in $29\frac{1}{6}$ per cent, and Group IV in $39\frac{1}{2}$ per cent. How many of the forty-eight cases were under three years old is not stated. Later in 1916 Wollstein and Benson⁵ reported the results in fifty cases of pneumonia in children, of whom only six were more than two years old. Type I and Type II were each found in 12 per cent and Group IV in 60 per cent. In 1917 Mitchell⁶ studied ninety cases of pneumonia in children, of whom six were over six years old and sixty-two under two years. He found Type I and Type II each in 11 per cent of the cases, Type III in 33 per cent, and Group IV in 74.4 per cent. The fourth recorded study is by Lyon⁷ whose observations were made on 165 cases of children up to twelve years of age. It is obvious that the results of a study including sixty-three children under three years and 102 between three and twelve years of age can not be compared with a study on children under the age of three, since older children react clinically and pathologically as adults do. Even Lyon's figures show that among the sixty-three children under the age of three, of whom twelve

were not typed, pneumococci of Group IV were found twenty-nine times, or in 56½ per cent, which compares with 60 per cent in our two series and is higher than the 22.2 per cent of adult pneumonias caused by this group of pneumococci.

In our present series of eighty-seven cases of pneumonia Type I pneumococci were found three times and caused no deaths. Type II pneumococci were found in seven cases followed by empyema in three and by death in four. Group IV pneumococci were found in fifty-four cases followed by empyema three times and by death fourteen times.

In our present series Type II pneumococci caused empyema and death more often than Type I or Group IV; in Lyon's series Type I was followed by the highest number of empyemas. Mitchell records the fact that Group IV caused all the severe complications (empyema and meningitis) in his study. In our single case of pneumococcus meningitis in this series Group IV pneumococci were isolated from the cerebrospinal fluid before death and from the meningeal exudate at autopsy.

SUMMARY.

To sum up then, the incidence of the fixed types of pneumococci in pneumonias in children three years old or less is lower than it is in adults, Type III being exceedingly rare at this age.

The incidence of Group IV pneumococci, on the other hand, is far higher in pneumonia occurring in the first three years of life than it is in adults, as shown by all recorded studies.

The mortality rate of Type II pneumococci is distinctly higher during the first three years than it is in adults. The mortality rate of Type I pneumococci in infancy would seem to equal the adult rate. The mortality rate of Group IV pneumococci is variable in infants, but on the whole it causes a higher mortality in the first three years of life than it does in adults.

The problem of older children between the ages of four and twelve years is entirely different from that presented by infants.

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HEREDITARY GLAUCOMA SIMPLEX (JUVENILE GLAUCOMA).*

By ALBERT C. SNELL, M.D.,
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ELLIOT (*Ophth. Rec.*, Vol. XXV, p. 541), makes three general classifications for all cases of primary glaucoma, dividing them into the congenital, the senile, and the juvenile. A more consistent terminology and a more orderly sequence for this classification would be: the infantile, the juvenile, and the senile. This is a very natural and logical classification, since in addition to the common and well recognized forms of senile glaucoma, the other two groups present a very different symptom-complex. The infantile (the term being used synonymously with buphthalmos or congenital glaucoma) is also a very familiar type; whereas the juvenile form (hereditary glaucoma) is less well known and has received much less attention in the literature. The characteristic ox-eye appearance of the former promptly arrests our attention and renders the diagnosis easy, whereas juvenile glaucoma having the symptom-complex of glaucoma simplex and not presenting the large ox-eye of the buphthalmic type is often overlooked as a distinct type of glaucoma. In contrast to the infantile most if not all of these latter cases show a small eye or at least a small cornea. This condition and a history of glaucoma in a previous generation, make two of the differential points in the diagnosis between the juvenile and the infantile type. However, this differential diagnosis or classification has not generally been followed by all writers and therefore it is not always possible to determine to which type reference is made. I believe that a differential diagnosis should always be made and that the congenital type of glaucoma (buphthalmos) should not be confused with the juvenile or the latter with the senile.

I wish to call your attention briefly to the principal characteristics of the juvenile type, pointing out additional points in the differential diagnosis, and to report four cases in one family and two in another, occurring only in two generations.

Juvenile glaucoma simplex is not very common, although a number of cases have been reported and the entire subject presented in a comprehensive way in articles by Nettleship, Priestley Smith, Lawford, Calhoun, Elliot, Lohlein, Fuchs and others. Priestley Smith found that primary glaucoma occurring in childhood and youth was extremely rare and that not more than 1 per cent began before the twentieth year. Juvenile glaucoma proper, being only a small fraction of those included in this class, occurs much less frequently.

* Read at the Annual Meeting of the Medical Society of the State of New York, at Albany, April 19, 1922.

Age.—Age is an important point in the diagnosis. Calhoun states that a suspicion should be aroused as to the possible hereditary character of glaucoma when it occurs under the age of thirty. As the name of this class implies, the disease has its onset in youth, is not present at birth, but develops earlier than the senile. As pointed out by Lawford and confirmed by the observations of others "anticipation," the tendency of the disease to appear earlier in succeeding generations, is a characteristic feature of juvenile glaucoma.

Heredity.—As a predisposing cause heredity may be said to influence all forms of primary glaucoma, but in the juvenile it is a direct etiological factor, the disease being transmitted from generation to generation without intermission, and often occurring in several members of the same family. Harlan reports its occurrence in five generations. This is in contrast to the infantile type, where according to Parsons direct inheritance is rare, although the influence of heredity is well marked, the condition being considered congenital, due to some prenatal defect in the excretory passages. Buphthalmos is commonly a family disease but, as a rule, so also is juvenile glaucoma. The former usually is not transmitted to the following generation, whereas juvenile glaucoma, according to Lawford, is continuous, no generation being skipped.

Size of Cornea and Globe.—Smallness of the cornea has been noted in many cases of juvenile glaucoma. In those cases where measurements have been made the horizontal diameter has been found to be less than 12 mm. This has been thought to indicate some anatomic abnormality in the anterior part of the globe. Lohlein calls attention to the coincident presence of other congenital anomalies in 50 per cent of these cases. He points out further that 50 per cent of the cases of juvenile glaucoma are myopic. From the reported cases I find that when myopia is present it is commonly congenital.

Pathological Etiology.—Very little is definitely known. The smallness of the cornea and the presence of a large lens or some disproportion between the corneal ciliary region and the lens has been thought to have some influence on the excretory passages. Elliot states that in juvenile glaucoma some anatomic configuration of the globe paves the way for the onset of the disease with a minimum of assistance from the processes of senile degeneration. Seefelder found the irido-corneal angle obliterated by a total peripheral anterior synechia in a high myopic case.

A differential diagnosis between the infantile and the juvenile may be made by contrasting the following factors:

Infantile (buphthalmos)

- 1—Onset, first decade.
- 2—Direct inheritance—rare—does not recur in succeeding generations.
- 3—Megalocornea, often 28-38 mm. over 12 mm.
- 4—Anterior chamber, deep.
- 5—Condition chronic.
- 6—Blue eye.

Juvenile

- Ten to forty years of age. Always a direct inheritance and in consecutive generations. Microcornea, under 12 mm. Shallow, usually. Acute or chronic. Normal color of sclerotic.

The three classifications suggested in the beginning of this paper may be divided into age epochs; the juvenile occurring during the first decade, the congenital occurring during the second and third decades, and the senile occurring after the fourth decade.

Case Reports.—First family: This consists of father and son having glaucoma.

CASE I.—The father first discovered failing vision at fifty years of age when a diagnosis of glaucoma was made. For several years he was treated with myotics. An iridectomy was done in 1910. He came under the writer's care in 1912. At this time vision in the right eye was 20/30, in the left 1/100: Field contracted twenty degrees in the right and to a small central area in the left: Colonel Elliot performed a trephine operation on both eyes in 1912 at Buffalo which permanently brought tension down to or below normal, but vision gradually failed, being at the present time ability to count fingers. Has worn for several years +4 sphericals. At the time of the operation the discs were both very white and there was a very deep excavation. The only other ophthalmoscopic note of interest was the presence of broad scleral crescents with pigmented edges in both eyes.

CASE II.—The son, age thirty-five. Has one brother with normal eyes. In September, 1921, tension O.D. 50 mm. O.S. 46 mm. (Schoitz). Under eserine the tension has fluctuated between 31 and 45 mm. in the right eye and between 20 and 32 mm. in the left. Vision 20/20⁰. Fields cut to fifteen degrees for form and for white objects but with very marked contraction for color, approximately to ten degrees for red and to fifteen degrees for green in each eye. Refraction —0.25S. 0°. Iridectomy on right eye April 17, 1922. The ophthalmoscopic examination reveals a shallow excavation extending to disc margins. Discs have good color. No other fundus changes. Corneas measure horizontally 11 mm.

I consider this a case of juvenile or hereditary glaucoma. The case presents the usual characteristic of "anticipation," glaucoma having its onset at fifty years of age in the father and at thirty-five in the son.

Second Family.—The cases reported below, consisting of mother, two sons and a daughter, all presented the characteristic symptom-complex of glaucoma simplex. They had no character-

istics of buphthalmos. In addition to glaucoma the two brothers had an extensive coloboma of the optic nerve and the sister had a persistent optic nerve sheath.

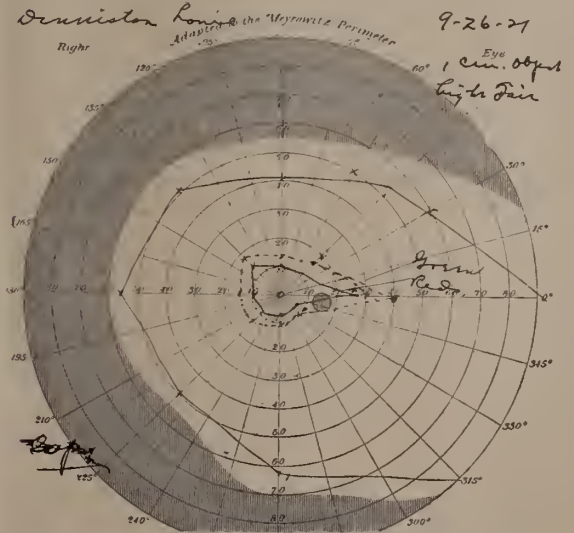
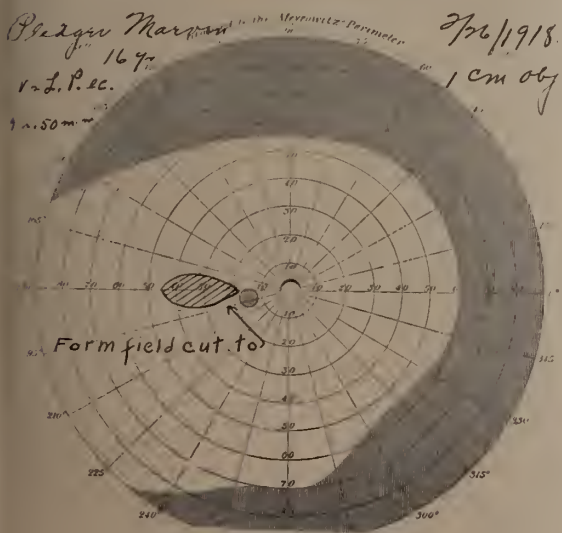
Case Reports.—**CASE I.**—The mother of the three following cases was not examined by the writer, but the following history was obtained and confirmed by all the other members of the family. A diagnosis of glaucoma was made when she was sixteen years of age. She was always near-sighted, was blind at thirty, and died of paralysis at age of fifty.

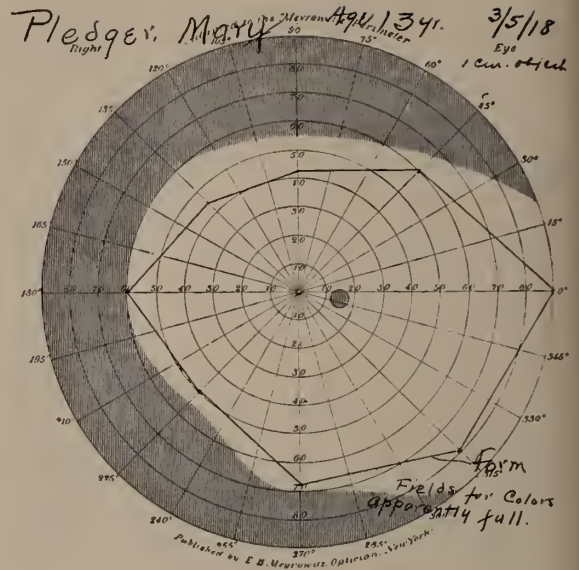
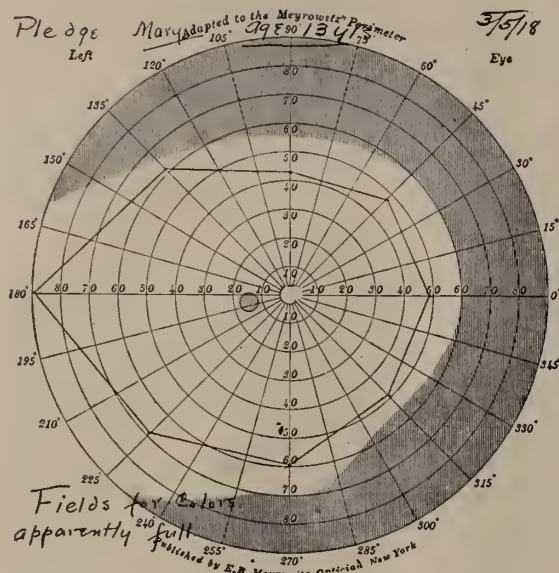
CASE II.—Eldest son examined February, 1918, age sixteen: He stated at this time that his vision had been failing since he was ten years of age, following measles, and that he had worn glasses for near-sight for six years. Examination: Corneas measured 11.5 mm. in diameter. The anterior chambers were shallow, tension (Schoitz) 56 mm. each eye, O.D. —3.50S. O —1.00Cy. Ax. 75° = 20/40, O.S. —4.00S. (retinoscopy) light perception in a small area of field, eccentrically. In the right eye the field on the nasal side was contracted to thirty degrees, above and below it was contracted to thirty degrees, and outward it extended to fifty-five degrees. In the left eye the field was limited to a small oval area lying between twenty and forty-five degrees in temporal field just beyond the blind spot. Pupils 4 mm. reacted to light. Media clear. The optic disc presented a very striking picture. It seemed to be two or three times larger than a normal disc, having a very deep central excavation, surrounded by a halo-like ring approximately one-half normal disc diameter. This scleral ring was nearly uniform in width having very clear-cut central rim and a slightly irregular peripheral edge, presenting a

few small scattered pigment spots. Over the peripheral rim of the excavation there passed thirteen arteries and four veins about equally distributed over the temporal and the nasal edges. These vessels could not be traced into the concavity, and except for a sort of veil-like shadow, deeper lying tissues could not be seen. The bottom of the excavation could not be seen with a —20 or more. There were no other choroidal faults or lesions.

Under the continued use of eserine, tension dropped to 50 mm. right eye, 45 mm. in left eye. On March 4, 1918, a La Grange operation was done on the right eye and an iridectomy with small iridencleisis in the left. Both eyes remained soft until October 1, 1921, although vision in the right eye since the operation had not been better than 20/100 and had gradually diminished, being on October 1st, 2/200. Tension was now found to be 37 mm.; left eye totally blind. On November 5, 1921, an Elliot was done on the right eye. December 17th, tension 37 mm.; vision 1/200.

CASE III.—Second son, age fifteen, examined March 5, 1918. Has always been well except very nervous. Has a peculiar twitching of head, a shuffling gait, with some dragging of right foot, constant blinking and twitching of lids. Ocular examination; pupils each 3 mm. react to light; corneas 11 mm. in diameter; tension (tactile, not able to use tonometer) +2, vision O.D. —4.50S. = 20/40, O.S. —4.00S. = 20/30; fields cut fifteen degrees temporal side, ten degrees nasal, no deep indentation; media clear; the optic discs presented a picture almost exactly similar to that of brother Case II. The bottom of discs could be indistinctly seen with a —24D. Eserine prescribed.





September 30, 1920, Tn. 60 to 70 mm. (Schoitz); vision O.D. with glasses 20/40, O.S. nil.

December 7, 1920, double Elliot trephine.

January 31, 1921, eyes soft; vision with glasses 20/50.

November 28, 1921, eyes quiet and soft; good filtration bleb; vision 20/50.

CASE IV.—Sister and youngest child, age thirteen. Pupils 4 mm. react to light; corneas 12 mm. in diameter; vision, O.D. $-4.00S. = 20/25$, O.S. $-3.00S. \ominus -0.75 = 20/25$; field slightly cut, five degrees concentrically; media clear; surrounding the discs there is a halo-like, slightly granular, whitish area one disc diameter above and one-half disc diameter below. The periphery of this area is slightly fringed, the whole area being characteristic of a persistent nerve sheath. The presence of a pulsating vein was noted. She was very nervous, so that a tonometer reading was impossible but tactile sense did not detect any increase in tension. A diagnosis of glaucoma was later made by a confrère.

Since reporting the above cases, Case IV of the second family has been operated upon, an Elliot trephine being done in the right eye on January 15, 1923. The field in this eye is contracted irregularly, reaching the twenty degree meridian in the upper temporal field. Tension was found by tonometer to be constantly about thirty-five millimeters despite the use of eserine.

In this family all three children were myopic to nearly the same degree, no eye of the eight

being less than $-4D.$ and none over $-5D.$, apparently a congenital hereditary myopia. Each had an optic nerve defect, the two brothers having deep colobomas of the optic nerve and the sister having a persistent nerve sheath completely surrounding the disc; all three children reveal "anticipation"—the tendency for the disease to appear earlier in the succeeding generation and all reveal symptoms of some peculiar nervous disturbance. Each had small corneas, between 11 and 12 mm. in diameter.

Experience with operations in these cases would show that iridectomy was of little value and that there is a greater promise of permanently reducing tension by obtaining some form of filtrating cicatrix. I believe that the Elliot operation should be the operation of choice in these cases. Apparently there is some anatomical defect in the filtration angle and an iridectomy was of no permanent benefit in any case.

Coloboma of the optic nerve is a very rare condition and such a condition associated with congenital glaucoma is so very unusual that a report of these cases seemed justifiable. The presence of the colobomas and the persistent optic nerve sheath probably have no causal relationship to the development of the glaucoma but these conditions point to the presence of an hereditary anatomic abnormality in these eyes which at least suggest the possibility of the presence also of some congenital defect in the structure connected with normal filtration or excretion.

ACUTE ANAPHYLACTIC REACTION FOLLOWING INTRAVENOUS INJECTION OF ARSPHENAMIN.*

By BURTON PETER THOM, M.D.,
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FROM the beginning of the intravenous use of organic arsenic in the treatment of syphilis certain phenomena have been not infrequently observed.

While not occurring often these phenomena are of sufficient frequency to require careful consideration whenever arsphenamin or any of its congeners is injected into the blood stream. Since we possess no knowledge at present whereby the occurrence of these phenomena can be foretold and also because in some instances the effect they produce upon the patient is fulminantly fatal, a definite understanding of their mechanism and the means whereby they can be prevented is of supreme importance.

Various explanations have been advanced from time to time as to the cause of these systemic reactions, present in a few, entirely absent in the vast majority of others. Most of these explanations we now know to be incorrect. It would serve no useful purpose to discuss them here and allusion to them will therefore be most brief.

The first attempt to explain these phenomena was by Ehrlich himself who believed that they were due to the formation of a poisonous oxide of arsenic. Ehrlich's theory has been practically discarded, although I am not so sure that in part at least, he was right. Lately his theory of a poisonous oxide has been revived in Germany by Stühmer who designates this poisonous product, "oxyd-toxin." Wechselsmann, Ehrlich's clinician, explained the more frequently occurring delayed reaction as caused by the liberation of endotoxins of dead bacteria in the water of solution. This explanation was at first widely accepted and hence the terms "water sick" and "salvarsan fever" came into use as synonymous of this delayed reaction. Schamberg and Strickler, investigating independently, arrived at the same conclusion that the alarming and sometimes fatal symptoms occurring during, or immediately following the intravenous injection of organic arsenic is due to some impurity in the drug. This impurity probably due to some fault in the manufacture or in the immediate, clinical preparation of the drug. Because of his inability to isolate it, Schamberg designated this toxic impurity, "substance X." It is quite possible—it is quite probable—that in some instances the presence of some impurity is the cause of untoward effects, but that it is so in every instance I do not believe. If it were, these accidents would occur as frequently at the first injection

as those subsequently. We know that they rarely if ever happen at the first injection but at the second or third or even fourth or fifth. It is therefore reasonable to suppose that if these accidents are due to some toxic substance in the drug the result of faulty manufacture or incorrect immediate preparation, they would be just as liable to occur at the primary injection as they would at subsequent injections; since we know that they do not, we must seek elsewhere for the cause. It is only logical to assume that since these reactions almost invariably occur after the first injection of organic arsenic some profound and subtle change in the tissues must have taken place because of this preparatory injection. There has; the tissues have become sensitized to arsphenamin. This is true whether we accept the oxyd-toxin theory of Stühmer or that a state of anaphylaxis has been created.

The reason why this hypersensitiveness to organic arsenic is present in some patients and absent in others can be answered in one word—idiosyncrasy. That certain persons react to certain drugs in a manner quite different to the known physiologic action of these drugs has long been known. These aberrant reactions have been rightly ascribed to idiosyncrasy but it must be confessed that in our use of this word that often we did not appreciate its true meaning. It sounded well and its ambiguity cloaked our ignorance. It could mean anything or nothing. But idiosyncrasy is not merely an interesting curiosity—it is much more. Much light has been thrown upon it in recent years by such workers as Cooke, Schloss, Talbot, Koessler, Rackeman and others. We know that it is an inherent tendency that causes an immediate reaction toward some substance to which the body cells have, in some way, become hypersensitive. We know that it obeys the laws of Mendel in heredity and that in some way it depends upon the chemical constitution of the body and that it is not specific for the species. We know that it is the primary—the fundamental—cause of anaphylaxis. Without idiosyncrasy there would be no anaphylaxis.

The phenomena of anaphylaxis have long been known, but the nature, or, rather, the mechanism whereby these phenomena were displayed, was absolutely unsuspected or ignored. It was not until the beginning of the present century—in 1902—that any attempt at explaining them was offered. We are indebted to Charles Richet for the first description of anaphylaxis as a definite clinical entity and also for the name by which these phenomena are known. Richet demonstrated that two factors constitute the "essential and sufficient conditions for anaphylaxis." These two factors are "(a) increased sensitivity to a poison after previous injection of the same poison, and (b) an incubation period

* Read at the Annual Meeting of the Medical Society of the State of New York, at Albany, April 20, 1922.

necessary for this state of increased sensitivity to develop."

Much work has been done within the last few years investigating the phenomena of anaphylaxis which has caused many former opinions to be now regarded as obsolete. It is possible that some of these present opinions may in turn be discarded. The trend of thought now is to regard these phenomena as physical rather than chemical. Kopaczewski, Lumiere, and Widal divide them into three forms, (1) the cell shock, or anaphylaxis; (2) the humoral shock, from sudden flocculation in the blood or lysis of the formed elements; (3) the thromboplastic shock, the solid elements in the blood forming centers for coagulation and thus giving rise to intravascular, thromboplastic phenomena. This shock reaction in all three forms is colloidal and represents an upset of the colloidal balance or equilibrium and this colloidal disturbance is responsible for the clinical and histologic manifestations. Organic arsenic gives rise to the humoral type of colloidal disturbance; that is, it causes hemolysis. This is borne out by the experiments of Kolmer, Schamberg, Raiziss and Weiss, who have shown that solutions of arsphenamin possess hemolytic power. They ascribe this hemolytic activity to three factors: (1) the direct hemolytic activity of arsphenamin; (2) the hemolytic activity of nonisotonic solvents—plain water or a hypotonic saline solution; (3) the hemolytic activity of the sodium hydroxide used to neutralize the solution. Further, which is also important from the clinical standpoint, they reported neo-arsphenamin to be devoid of hemolytic properties. Kolmer and Yagle also showed that concentrated solutions of arsphenamin are more hemolytic than dilute, and that solutions prepared from plain water were more hemolytic than isotonic solutions.

Because of this rupture of the physical equilibrium of the colloids of the organism of which the shock is the expression Widal and his associates have designated this type of anaphylaxis by a new term, "colloidoclasia." As we now understand these phenomena, especially when caused by arsphenamin or any of its congeners it is more descriptively applicable.

Another term used to describe these phenomena following the intravenous injection of arsphenamin, and one which is still used extensively in this country, is "nitritoid crisis." This was first employed by Milian because of the close resemblance of these phenomena to acute nitrite poisoning. Because of the asphyxia and the sudden and profound drop in the blood pressure, Milian recommended intramuscular injections of adrenalin or epinephrin as a preventative measure. The changes that take place in the lungs during anaphylactic shock which were observed by Auer and Lewis and also by Manwar-

ing and Crowe has led others, notably Stokes, and Strickler, to advocate atropine hypodermically because of its physiologic action as a respiratory stimulant and antispasmodic. Since the nature of the reaction is entirely different from what Milian supposed it to be, it is needless to point out that these measures, based as they are upon a premise that is incorrect, are useless. The distinction that Girbal would make between the so-called "nitritoid crisis" and the colloidoclastic shock following the intravenous injection of arsphenamin, in the light of present knowledge is not tenable.

Investigations to prevent these reactions not only after the injection of arsphenamin but also after the injection of curative serums such as diphtheria antitoxin has led to some interesting as well as practical results. For instance, it has recently been shown by Roux, Besredka, Banzhof and Fumulener that these reactions can be prevented if the injection is given while the patient is in a state of hypnosis induced by such sleep producing drugs as chloral, chloralose or urethane. It has also been shown by Kopaczewski that ether narcosis acts as a preventative. These observations are of further interest in that they show that the nervous system has little or no part in the phenomena of anaphylaxis.

Most of the latest work on colloidoclasia has been done in France and Germany. That precipitation of the formed elements in the blood is the most important factor in arsphenamin colloidoclasia has led many workers to seek some chemical substance which by injecting into the blood stream this precipitation could be prevented. After experimenting with many reagents Lumière and Chevrotier found that sodium sulfocyanide, sodium ethylsulfate and sodium hyposulfite would prevent the reaction from occurring when injected intravenously five minutes before the arsphenamin is to be injected. Sixty c.c. of five per cent solution of any one of these substances can be used.

Sicard and his coworkers found that the preliminary injection of sixty c.c. of a two per cent solution of sodium bicarbonate is equally efficacious. In addition to this in order to limit or localize the reaction to the part in which the injection is made a constricting band is applied above the point of injection which in most instances is in one of the veins of the forearm. If hemoclasia occurs it is restricted to the part below the constricting band or tourniquet which is removed five or six minutes later when the danger is past. Sicard calls this procedure "arsenical anticlasia by topophylaxis."

The technique of Besredka which is to give a number of injections—three or four—of small amounts of arsphenamin—two to four c.c.—at intervals of ten or fifteen minutes before the maximum or therapeutic dose is a safe but

hardly practical method. Danysz claims that one small preceding dose is sufficient. Kolle, the successor of Ehrlich, whose experiments have been much more extensive, is of the same opinion. He gives one-fifth to one-fourth of the maximum dose twenty-four hours before, while Danysz gives it two hours before.

To summarize: The shock that sometimes follows the intravenous injection of arsphenamin or any of its congeners, while of rare occurrence, yet because of its sometimes fatal outcome and the fact that its occurrence is always unexpected and cannot be presaged, makes it a possibility that must always be considered. It is our duty therefore in order to protect the patient from every possible contingency, even the most remote, to provide against this reaction from occurring. We know that arsphenamin in itself possesses hemolytic power and that this hemolytic power is enhanced by improper immediate preparation; that is, by using plain water or a saline solution that is hypotonic, or improper use of the neutralizing agent, sodium hydroxide. We also know that the dangers of hemolysis are increased if the arsphenamin is given in too concentrated solution. We also know that neoarsphenamin is practically devoid of hemolytic powers. It has also been recently shown by Schamberg that unduly agitating the arsphenamin solution its toxicity is increased. We also know that certain measures which have been described will prevent the shock that might otherwise occur. Let us therefore tabulate the precautions which should invariably be taken to prevent these accidents from happening.

If arsphenamin is to be given, the solution should always be isotonic. The water from which this isotonic solution is prepared should be doubly distilled and fresh—that is, it should not be more than four hours old when used. The sodium hydroxide solution should be of known strength and also freshly prepared. A sodium hydroxide solution that has been kept indefinitely should not be used—it is dangerous. Neutralization should be exact—not guessed at. In preparing the solution it should not be too vigorously shaken or shaken for too long a time. Its toxicity is much increased thereby. A concentrated solution of arsphenamin should never be given. A dose of 0.6 gm. of arsphenamin should never be given in less than 180 c.c. of water. Personally I prefer neoarsphenamin to arsphenamin. It is not hemolytic or if it is, infinitely less so than arsphenamin. It is simpler to prepare and thus the chances of error are reduced to the irreducible minimum. It can be given in concentrated solution—I give 0.9 gm. in thirty c.c. of water—the dilution of Thibierge. This small amount of water has the added advantage of not increasing the strain on the heart as when arsphenamin is given. It may be ob-

jected to that neoarsphenamin is not as active therapeutically as arsphenamin which is true. The difference in their therapeutic index is approximately as five is to three; this difference is easily overcome by simply increasing the dose of neoarsphenamin. The average dose of arsphenamin is 0.6 gm., its arsenical equivalent is practically equaled by 0.9 gm. of neoarsphenamin. Since it is the dose or doses subsequent to the first dose of organic arsenic from whence these accidents arise no special precautions are required at the first dose. Subsequent to it precautions should be taken. Of these, practical experience has shown that the method of Kolle—a preliminary injection of one-fifth the therapeutic dose twenty-four hours before the therapeutic dose is to be given—is the simplest and equal to any other in its preventative effect. Or, the injection of sixty c.c. of a two per cent sodium bicarbonate solution five minutes before the injection of the arsenical solution. If either of these simple measures is followed whenever arsphenamin is intravenously injected subsequent to the first injection, or if neoarsphenamin is given the invariable preference, colloidoclasia, arsenical anaphylaxis, or “table reactions” will never occur.

THE TREATMENT OF DEAFNESS AND TINNITUS.*

By HAROLD HAYS, M.D., F.A.C.S.,
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IN determining the types of deafness that one encounters and the amount of good that may avail from medical treatment, one must divide the cases of deafness into two classes; first, those that are amenable to treatment, and second, those that are not amenable to medical treatment, but must be handled in a psychological way. There is a definite line of demarcation between these two classes of cases, which must be kept in mind if any worth while result is to be expected. It may be stated here that it is of as much importance to treat certain cases psychologically as it is to treat other cases medically.

The treatment should be divided into preventive treatment, the treatment of allied etiological factors, and the direct treatment of the ears.

Preventive Treatment.—In the preventive treatment of deafness, one must look backward toward those conditions in childhood which might have materially resulted in some affection of the ear. One must attempt at this early age to eliminate all etiological factors which may give rise to deafness later on in life. There are any number of these factors which have to be considered, chief among which are diseased tonsils and adenoids in children, the various colds which chil-

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dren are afflicted with, the inflammatory conditions of one kind or another which affect the nose, throat, and nasopharynx, and the acute infections of the ear which may take place during the course of one of the exanthematous diseases. One may consider that today, the majority of acute conditions of the ears in children are well taken care of; but it is seldom that a child's ears are properly looked after when once the acute condition has subsided. For example, one realizes that children who are stricken with contagious diseases have proper care taken of the ears during the acute process, or whenever there is any acute infection of the ear, but how many of these children have their hearing tested after the acute process is over? It is just at this time that a great deal might be done for the ears. It might be said, from our investigation of a number of these cases, that a large proportion of these little patients suffer from some defective hearing, which is never recognized until the condition becomes irremediable a number of years later. When one investigates the causes of deafness later on in life, he will find that almost invariably the patient will state that he had suffered from some contagious disease in childhood and that the onset of the trouble, apparently, took place at that time. When those children are referred to the family physician, often advice is given to leave the ears alone. It is only when the child is sent home from school, with a report from the teacher that he is not getting along well in his studies, that some attention is paid to the ears. This may be years later, when definite changes have taken place within the middle ear which it is impossible to overcome. Just within the past day or so, I have seen twenty or thirty of such patients suffering from all sorts of ear defects, the majority of them having occurred after some acute contagious disease. If the ears had been properly attended to at this time, there is no doubt in my mind that a great deal might have been done to have overcome the condition, but at the present time it is a problem which deserves the most serious consideration. What should be done with these children to keep them from becoming permanently deaf after they reach adult age?

Diseased tonsils and adenoids play a marked part in childhood in creating deafness. The tonsils and adenoids should be removed as soon as there is any suggestion of trouble in the ear. Not by any means do all these children respond to the removal of these organs; yet the possibilities are that the elimination of infective factors within the throat will help considerably in restoring hearing acuity. Among other conditions which should receive attention at that time are the various colds in the head due to a pathological condition in the nose.

In adults, there are certain pathological con-

ditions in the nose, throat or nasopharynx which must receive attention. Among these are diseased tonsils, which have a direct action on the Eustachian tube, and also indirectly cause a certain amount of irritation to the auditory nerve by absorption of infective material. Among the pathologies of the nose may be mentioned deformities of the nasal septum and sinus disease. It is a question in my mind whether either one of these conditions, by itself, may be considered absolutely accountable for an ear trouble, and yet they must be taken into account and be corrected. Among the nasopharyngeal abnormalities are polypoid growths in the region of the Eustachian tubes and adhesions in the fossa of Rosenmüller. Anything which keeps up a direct irritation through the Eustachian tube will result in a stenosis at the isthmus and continue an irritative condition of the middle ear, with a resultant deafness.

But we are more concerned with the direct treatment of the ears. There has been a distinct evolution and revolution in the methods of treatment within the past few years. Today, we are not satisfied with the simple inflation of the ear. One must make a thorough examination in order to determine the types of deafness. They may be divided into four classes: a. Adhesive processes in the middle ear; b. Relaxation of the drum and ossicles; c. Derangement of the internal ear, and nerve deafness; and d. Chronic suppurative otitis media.

a. *Treatment of Adhesive Processes.*—The adhesive processes within the middle ear are usually treated by some form of massage. This may consist of either Politzerization or catheterization, to begin with, if the tubes are wide enough open to allow of inflation. If an ear can be Politzerized, this simple treatment is sufficient to do a great deal of good in many cases, but the use of the catheter, with severe inflation of the ears, which was attempted formerly, we have found, in many instances does more harm than good, for there is always the possibility that overinflation will result in a relaxation of the drum. It is far better to attempt to overcome the stenosis in the Eustachian tube by other means, such as dilatation with suitable applicators, sounds and bougies. The sounds are allowed to progress until they reach the middle ear. They must always pass through the isthmus and they should remain in place for fifteen minutes. After the tube has been dilated, a gentle inflation may be tried through the catheter; but under no circumstances should severe inflation be allowed at any time. Aside from this method of treatment there are various forms of vibration which have been suggested, among them the vibration by means of a Rice oto-concussor. Whether the Rice oto-concussor, by itself, will alleviate any form of deafness, it is impossible to say, but as an adjunct

to treatment, it is more than worth while. There are other forms of vibrators which do a great deal of good in certain selected cases, but one must always consider that each case has to be treated as an entity by itself.

One must not neglect to investigate the general physical condition of the patient, for it is invariably found that if the general physical condition is below par the hearing will suffer as a result of it. It is a remarkable fact that the psychological condition of the patient has a great deal to do with the hearing acuity and that it is impossible for the patient to have perfect hearing even under the best of circumstances, if the general physical condition is below par. How the general physical condition can be brought up to par cannot be dwelt upon here.

b. *Relaxation of the Drum.*—A number of years ago I stated that 50% of the cases of deafness were due to a relaxation of the ear drum, and I termed the condition "pocket-handkerchief deafness," because it was mainly due to an improper blowing of the nose. It is surprising how many patients use their ears as trumpets, thus blowing the ear drums out, so that they become so relaxed that they cannot sense the sound. It is a very difficult matter to bring these drums back to their normal condition. Of prime importance in the treatment is to instruct the patient how to blow his nose, so that too much air is not forced into the ears, under pressure. Among the aids for the correction of this condition are the painting of the drum with cantharides collodion, as advocated by Heath, of London. Many otologists have tried this method of treatment, but are not enthusiastic about it, but in well selected cases it has done a great deal of good. In other instances, one may have recourse to the use of the artificial ear drums which are so much advertised nowadays. In the majority of cases, artificial ear drums do little good, but one will often be surprised to see how much they increase the hearing acuity.

c. *Nerve Deafness.*—Nerve deafness is a hopeless condition. As a rule, it is due to meningitis or syphilis, and is beyond correction by medical means. Such patients must take up lessons in lip reading and must be treated psychologically.

d. *Suppurative Processes in the Ear.*—A great many children have a suppurative otitis media which goes on for a considerable length of time, and sometimes never ceases until a radical mastoid operation is performed. The hearing will naturally suffer as long as there is any discharge from the ear, or if there has been any necrosis in the ear as a result of the diseased process. In order to improve the hearing in these cases, it is absolutely necessary that the ears be thoroughly cleansed, and that stimulation be given to the mucous membrane. In many instances, the discharge is kept up by the open Eustachian tube,

which allows of any infective matter from the throat being discharged through the ear. There are numerous treatments which have been suggested for this condition, and it is my belief that 90% of these cases can be improved or cured if proper medical measures are used. In the other 10% it will be necessary to do a radical mastoid operation. In many instances, when the discharge has ceased, the hearing is worse than it was before. If there is a great deal of destruction of the ear drum and the ossicles within the middle ear, one may use the artificial ear drums as soon as the ear becomes dry. It is particularly in cases of this kind that the artificial ear drums do their greatest good.

e. *Tinnitus.*—I shall take up the question of tinnitus very briefly. Tinnitus is a very baffling symptom. The etiological factors which enter into the condition are so diversified that it is almost impossible, in many cases, to be able to exactly determine what is the cause. One must take into consideration both general and local causes. Among the general causes are; a change in the circulation in the blood and an alteration in the physical condition of the body, due to one of the various forms of amenia, general infection due to some local focus, and infections from the intestinal tract. Everyone of these factors must be looked into before one can attempt to correct the ringing noise in the ear. After the general factors have been eliminated, one must pay attention to the local ones. Among the local factors of importance are; an alteration in the mechanism of the middle ear, which will give rise to deafness at the same time. In fact, tinnitus is so closely associated with deafness that frequently patients will say they are sure that if the noise in the head would cease, they are sure they would be able to hear better. It is questionable whether this is so or not. A factor of a great deal of importance is the pathological change in the labyrinth, possibly due to a deposit of lime salts in the cochlea.

The treatment should, naturally, be directed toward the cause of the condition. The general physical condition of the patient must be built up, and one must inquire very carefully into the endocrine system in order to determine whether there is not something the matter with the ductless glands. Secondly, one should insist upon the patient exercising the middle ear. Within recent months we have constructed a course of exercises, which will help a great deal in altering the circulation in the middle ear, and will have a tendency to improve the hearing and tinnitus. The instructions to the patient are as follows:

EXERCISES FOR THE HARD OF HEARING.

The object of these exercises is (1) to increase the blood circulation in the head (2) to relax the muscles of the head and neck, and (3) to re-

flexly or directly exercise the delicate mechanism of the middle ear.

The exercises should be performed for five to fifteen minutes each morning on arising.

Exercise I.—Yawning. The mouth should be opened widely, with the jaws on a stretch, so that tension is felt in the muscles in the back of the throat. At the end of the yawn, take a slow, full swallow. Do this five to ten times.

Exercise II.—Protrude the chin and draw it back eight to ten times. Draw the upper lip in and out, at the same time dilating the nostrils.

Exercise III.—Manipulation of the ear lobes. Grasp both lobes of the ears and pull them backward and upward, then downward, until you can feel the pull inside the ear. Push the little tab in front of the ear in and out of the canal. Attempt to move the ears, by raising and lowering the scalp, like the animals do. First frown deeply, trying to furrow the forehead, then relax and draw the skin of the scalp toward the back of the head. After practice almost anyone can learn to do this exercise.

Exercise IV.—Relaxation of the neck muscles. Place both hands behind the neck, interlocking the fingers. Press the head firmly back against the resistance of the hands, and then relax slowly. Do this eight or ten times. Next move the head toward the right shoulder, then the left, and lastly, rotate the head from one side to the other, going in each direction as far as possible.

N. B. The exercises should never be continued to the point of fatigue. Work at them gradually until you can do them all in a few moments each morning.

Aside from this, one must sometimes have recourse to specific medications, such as potassium iodide or adrenal chloride. These medications have a tendency to alter the circulation in the middle ear and labyrinth.

In conclusion, let me say that it is almost impossible to describe the diversified forms of treatment that are necessary for both tinnitus and deafness, in such a short space of time. One has to use a great deal of diagnostic acumen in order to be absolutely sure that one arrives at the causative factors in each case. We are far from feeling, at the present time, that we have been able to improve the hearing in adults, where there have been permanent changes in the middle ear, but, at the same time, the hope for the future is great because we have eliminated all the old processes of treatment which were more or less empirical, and now are treating our patients on a more or less common-sense, rational basis. But that there is a great psychological factor which plays a more or less important part in these cases, is evidenced by the numerous forms of fake cures which have sprung up recently, and

which seem to result in some improvement, which, of course, is transient. Chiropractors, Christian Scientists, osteopaths, make extravagant claims to patients, and have such a hold on the laity that their offices are crowded. Many patients who go to these so-called practitioners feel that they have improved considerably. Tests of their hearing show that there has been no improvement whatsoever, but the mental stimulation which they give the patient, and the effect upon their psychology, has made it possible for them to feel that their hearing acuity has improved considerably.

THE PROBLEM OF HOSPITAL COSTS AND THE TRAINING SCHOOL PROBLEM FROM THE VIEWPOINT OF A SURGEON.*

By E. MACD. STANTON, M.D., F.A.C.S.,

SCHENECTADY, N. Y.

ONE of the great practical problems confronting the Medical Profession at the present time is that of making and keeping freely available for the average patient the possibilities of modern medicine. Broadly speaking, methods of diagnosis and treatment are practically applicable only in so far as the public can afford to pay for such services. The change from one-man diagnosis to the modern methods often requiring the co-operation of several diagnosticians and the use of much costly apparatus has not tended to simplify the economic aspects of medicine. Similar tendencies in the therapeutic side of medicine have also tended markedly toward increasing costs. The future stability and progress of the Medical Profession must depend largely upon our devising ways and means by which the possibilities of modern medicine and surgery shall be made and kept reasonably available for the patient in average circumstances. The public is going to hold the medical profession responsible for accomplishing this, and in so far as we fail we must sooner or later suffer the penalties.

There are many questions involved, but from whatever side the main problem is approached the modern general hospital stands forth as one of the most important single factors in the solution. The modern hospital in itself is an inevitable and necessary product resulting from the introduction of modern medical and surgical methods. Before these developments in medicine and surgery our hospitals were simply almshouses, where the pauper sick were sent when no other means could be provided to care for them. Today the hospital has become an absolute necessity for all classes of our population. The com-

* Read at the Annual Meeting of the Fourth District Branch of the Medical Society of the State of New York, at Schenectady, September 26, 1922.

munity without easy access to a hospital is in many essentials at least a community without modern medical facilities. Likewise, any portion of our population deprived of reasonably available access to hospital facilities is a portion of our population shut off from many of the possibilities of modern medicine. If hospitals could be conducted only for the rich who can well afford to pay for hospitals, run as some would have them run, or for paupers who must take charity service as it is given them, the problems of hospital would be relatively simple. The facts are, however, that for the general hospital to fulfil its proper function in a community it must furnish reasonably adequate care to the great mass of patients in average circumstances.

Broadly speaking, these patients comprise at least eight-tenths of our population. They do not want charity, and even if they did, the utmost limits of charity available for medical purposes are always taxed by the medical needs of the destitute poor. If our hospitals are to fulfil their proper function they simply must be maintained at an average level commensurate with the ability of the average patient to pay for the services rendered.

For the reasons above noted the writer has viewed with anxiety the tendency which has been very noticeable during the past few years to increase hospitals costs even more than the increment represented by the general increase in the cost of living.

That this increase has been very real is shown by the following tables representing the former and present charges in two hospitals of the Capital District of this State, both of which hospitals are situated in almost exclusively industrial communities.

COHOES HOSPITAL.

1911	1922	% Increase
Ward	\$7.00	\$14.00 100%
Semi-private	\$8.00 to \$10.00	\$21.00 110-162%
Private room	\$12.50 to \$25.00	\$28.00 to \$35.00 40-133%
Pupil, special	\$15.00	not furnished
Graduate, special	\$25.00	\$70.00 180%
Nurse's board	\$5.00	\$21.00 320
Operating room	\$5.00	\$7.00 to \$15.00 40-200%

In our own Ellis Hospital the increases have been more moderated but on the whole they show much the same tendencies.

ELLIS HOSPITAL—SCHENECTADY.

1912	1922	% Increase
Ward	\$7.00	\$12.00 72%
Children's ward	\$7.00	\$15.00 112%
Baby ward	\$6.00	\$12.00 100%
Semi-private	\$10.00	\$14.00 to \$15.00 40-50%
Private rooms	\$12.50 to \$25.00	\$21.00 to \$35.00 68-50%
Ambulance	\$2.00	\$4.00 100%
Operating room	\$5.00	\$7.00 to \$15.00 40-200%
Pupil, special	\$17.50	not furnished
Graduate, special	\$25.00	\$70.00 180%
Nurse's board	\$5.00	\$14.00 180%

Figures as shown by the above tables represent details subject to various groupings. In

Cohoes even the Ward and semi-private patients are confronted with increases amounting to from 100 to 162 per cent. In Schenectady we have succeeded in keeping down the increases for semi-private patients to amounts ranging from 40 to 50 per cent, but the general average increase of cost to patients in the hospital has been considerably greater. From the annual reports of 1913 and 1921, together with some additional data on special nursing during these periods, I have been able to estimate I believe quite accurately that the average cost to the patient per day in the Ellis Hospital, including special nursing, as distributed over all patients amounted in 1912 to approximately \$1.90 per day, while by 1921 this cost had risen to approximately \$4.20 per day or an increase of 121 per cent. Again, studying these figures from another view-point, it is seen that in 1913 the deserving patient suffering from some surgical illness requiring or making desirable a special nurse could obtain his first week's care in a private room including operating fee for:

Ambulance	\$2.00
Room	15.00
Operating room	5.00
Pupil nurse	17.50
	<hr/>
	\$39.50

Today this cost is as follows:

Ambulance	\$4.00
Room	25.00
Operating room	15.00
Nurses' board	14.00
Special nurses	70.00
	<hr/>
	\$129.00

This represents an increase of 227 per cent, which is out of all proportion to any increase in the cost of living and also out of all proportion to any increased ability on the part of patients to pay.

The typical general hospital occupies a position in our economic and social organization which is quite unique as regards its inherent ability to function on a low cost basis. The chief reasons why this economic position is unique, are as follows:

1st. Few general hospitals are under the necessity of earning interest on investment. In the case of most hospitals the capital necessary for buildings and equipment has been donated by individuals and the public for the express purpose of enabling the hospitals to furnish their services as cheaply as possible.

2nd. Most hospitals are tax-free, and taxes represent a really important item in most costs.

3rd. Most hospitals are in a position to go to the public and obtain as donations sums at least sufficient to cover depreciation charges.

The three above mentioned factors not only tend to make it possible for hospitals to operate on a low cost basis, but they place a direct moral obligation on such institutions to operate at the lowest cost commensurate with reasonably good service.

4th. One of the chief functions of the general hospital should be that of an educational institution capable of imparting to young women a form of education which on close analysis is found to be different in kind and social value from any other form of education available for women. It is really this educational factor which has made possible the development of the modern general hospital. The problem of our future development of hospital service must always revolve largely around the question of the use that can be made of the educational possibilities of these institutions. Without the nurses' training school, most hospitals could not exist. Likewise, any limitation in the number of pupil nurses below the normal requirements of the hospital is certain to limit the functioning of the hospital. The problem of costs and of present and future hospital development is therefore, inseparably connected with and very largely dependent upon the policies governing training school activities.

That there should be some conflicts of interests and opinions concerning the general policies of our training schools is inevitable. The interests of the graduate nurses can be safely intrusted to the very large proportion of training school and hospital superintendents who are themselves graduates of training schools. On the other hand, from the viewpoint of the medical profession the practical exigencies of hospital work and the actual care of the sick in the hospital may sometimes be given undue precedence when training school problems are under discussion. That the problems of nurses' training are of vital importance to the medical profession is self evident and that we must lend our best thought and efforts to a solution of these problems is equally self evident.

If we must limit our training schools so that they turn out only relatively small numbers of highly trained nurses, then the activities of our hospitals must in the long run be correspondingly limited. On the other hand, if our training schools can be developed as educational institutions having inherent in them most unique possibilities—possibilities far greater in fact than can be measured by the professional activities of the R. N. graduate, then it will be possible to correspondingly increase the activities of our hospitals.

Within recent years the tendency has undoubtedly been toward the limited number of highly trained graduates. The advocates of still higher entrance and training requirements tell us that raising the standards will not decrease the

numbers in training. Within recent months some of the stronger hospitals have again been able to fill their training schools, but a survey of the general situation would seem to show that this is a temporary phenomena due largely to the economic depression and that if our hospitals taken as a whole are to make full use of their educational possibilities there must be a radical revision of training school requirements.

In 1920 we had in the United States according to the survey of the American College of Surgeons 2,547 general hospitals with 217,929 beds. For these hospitals to operate most efficiently they should have in training approximately 108,000 pupil nurses. Not many years ago a considerable proportion of our hospitals did have a normal quota of nurses in training, but the report of the Committee on Nursing Education of the Rockefeller Foundation (*Modern Hospital*, August, 1922) gives the number of student nurses now in hospitals as only 54,953, or only about half the number which our hospitals could use to advantage. In New York State we have 262 general hospitals with approximately 32,000 beds. From the State Department of Education at Albany, I learn that in recent years we have been graduating from the various hospitals of New York State only about 1,800 nurses annually, or considerably less than one-half the number which our hospitals would graduate if they were fully supplied with pupil nurses.

The Rockefeller Committee Report above referred to may be taken as a typical exposition of the argument for a still higher standard of education for nurses. Unfortunately this report is obviously chiefly the work of the Secretary of the Committee, Miss Josephine Goldmark, an ultra enthusiast for higher nursing education. According to this report the education of nurses "capable of caring for acute diseases" should be limited to high-school graduates trained in hospitals with endowed training schools under conditions in which not even one-fifth (pg. 99) of the pupil's time is to be spent in such "clear wastage" as "sterilizing instruments," and doing other useful things not directly associated with the constant acquirement of new knowledge and training on the part of the pupil.

This report tells us that we already have in this country 149,128 trained and registered nurses and that there is a definite need for 39,000 additional nurses for public health work. This estimate of the need of 188,000 in this country seems conservative. If graduate nurses, like doctors or lawyers continued to practice their profession after graduation it would require comparatively few graduates per year to supply the country with 188,000 nurses. However, marriage cuts into the ranks of active graduate nursing so rapidly that it will require approximately 30,000 graduates per year to continually

recruit 188,000 active nurses. To recruit this number from high-school graduates would require that approximately one in five of all woman high-school graduates in the United States should enter a nurses' training school.

It seems quite absurd to even think of the possibility of one out of five of all women high-school graduates entering a nurses' training school. Unless there is to be an enormous and entirely unlooked for increase in high-school graduates the supply of high-school candidates must be largely exhausted in recruiting the 50,000 super nurses said to be needed for public health work.

The fact that there is a demand for a large number of highly trained nurses is indisputable. On the other hand it is very essential that we keep a clear perspective of the situation as a whole and especially as it applies to the needs of and the educational possibilities inherent in the average general hospital.

It is quite possible that if our general hospitals were allowed to develop their training schools along natural lines unfettered by too many rules and regulations that it would be found that they are amply capable of filling our communities with a considerable proportion of wives and mothers trained in the fundamentals of domestic economy and nursing and that therefore the army of 50,000 public health nurses might be considerably reduced with a corresponding reduction in the taxpayers' burden.

From the broad viewpoint of society in general the education received by the pupil nurse while in training is absolutely unique. It is different in kind and social value from any other form of education received by women.

It would be quite ridiculous to think of training all young women to be stenographers or music teachers because universal education along such lines would be of no social value to the community. On the other hand, there is not a community anywhere that would not have better homes, and better health, and better living conditions if every young woman in that community were to receive at least a short course in a nurses' training school.

From still another educational viewpoint the possibilities offered by the hospital training school are unique. Boys or girls in college are drones, spending their parents' money and that of the college. During their time spent in school they are as a rule of no direct social value to the community. Their only excuse to society is that after graduation they will be able to do better work and thereby some day repay their debt to society. On the other hand, the pupil nurse is from the very day she enters training a most valuable member of society. Society recognizes this fact by furnishing her free tuition and board,

room, laundry and a small allowance for incidental expenses. It costs real money to go to college, but the hospital training schools are in a position to offer to a vast number of young women practically free of cost a form of education almost equal in mental training and discipline to the college course and one which from the standpoint of a woman's real work in life, that of bearing her children and running her home, is in some respects far superior.

There is still one other point in which the education received by the nurse stands out in contrast to other forms of education. The modern psychological tests would seem to show that only a relatively small proportion of the general population is really fitted to make the best of the collegiate type of instruction. On the other hand, the education received by nurses is very largely of an objective type vastly better adapted to the training of the average mind than are most other forms of instruction.

From the viewpoint of society as a whole the educational possibilities of the nurses' training school are absolutely unique. I for one believe that any attempt to sharply curtail these possibilities is definitely anti-social and that sooner or later the attempt will be doomed to failure.

In the above paragraphs I have stressed the fact that the value of the education derived in the nurses' training school can not be measured in terms of the professional activity of the registered nurse. The value of education can never be measured by earning power yard sticks and particularly is this so of the education of women.

A study of the training school alumni list of the Ellis Hospital shows that after five years 57 per cent of the graduates are married and running their own homes while after ten years 85 per cent are married. The great value of that element of the hospital training which fits the graduate to more intelligently run her home and care for her children is demonstrated by the fact that with a marriage rate as noted above, the average pupil graduating at age twenty-three has already by age thirty-five spent approximately half her time after graduation in running her own home. For the average graduate the value of her training as a means of earning her livelihood soon sinks into a position of relative unimportance.

Experience has I believe fully demonstrated that in recent years our supply of nurses, both pupil and graduate, has been inadequate. Even on the present basis of training there is no justification for limiting the supply as it has been limited in recent years. On the other hand, it is by no means easy to predict that we can for any extended period of time meet the present and future needs of our hospitals for pupil nurses on the basis of our present system of training.

If we estimate our present needs in New York State at only four thousand pupils per year it would mean that to fill the demand approximately one out of twenty-five of the young women of this state who reach age twenty each year would have to be induced to enter a nurses' training school. While a considerable proportion of our young women could to their great advantage spend a reasonable period of time in such training it is quite out of the question to think of making our present type of highly trained R. N. nurses out of 4 per cent of the adult women of the State. The actual demand can never require any such number of women trained not only in the fundamentals but in the specialties of nursing.

In conclusion I will suggest the probability that sooner or later our hospitals must face the problem of using part at least of their educational facilities for courses designed more especially for homemakers and to furnish a type of graduates capable of caring for the very large proportion of cases which are now employing nurses who have had no hospital training. Such courses could be so planned as not only to fill the demand for less highly trained nurses but also so appeal to young women from the home-economics viewpoint far more than does the present course.

Discussion.

DR. R. R. CANNA, Amsterdam: Dr. Stanton has voiced my sentiments when he calls the attention of the profession to the steadily climbing cost of medical and surgical treatment in our hospitals.

The public is constantly complaining of this high cost and now are turning a deaf ear to the many appeals for aid to the hospital. They say that there is no charity about any of them and refuse to give. Now about the nursing question. We are still very short of nurses in this State, and in order to make up part of this deficiency we must depend on trained attendants and certified nurses. Any good, bright girl can be taught and trained to be a valuable adjunct to the sick room in a period of six months.

At St. Mary's Hospital in Amsterdam we have inaugurated a new method for securing girls of high school education for our training school. The Mother Superior has made a personal appeal to the high school teachers to advise one or more of their girls to take up the profession of nursing, and in some cities she has appeared before the different classes and told them of the wonderful advantages of the nursing profession, and by this method we have been able to secure all of the nurses we can accommodate. We have at present twenty-five nurses in training in this hospital of fifty beds. The superintendent of a hospital cannot do everything to get girls for training. It is up to the doctors and graduate nurses to do their part. They should endeavor

to induce many of the competent young girls to adopt the nursing profession, and even if they never practice it, the training and knowledge will do more than any other profession to assist them in the future.

DR. LEO F. SCHIFF, Plattsburg: I was particularly interested in that part of Dr. Stanton's paper relative to the nursing situation; as it confirms conclusions I have recently come to, after meeting the situation from a different point of view. I think we have all realized that a considerable percentage of our nurses marry within a few years of graduation, and cease to practice their profession to any great extent. At first it seemed to me that this was a great waste of education; but recently, in facing the problem of how to interest our high-school girls in taking up nursing as a profession, I suddenly realized that it was in reality a natural stepping stone to a domestic career; and that the knowledge they gained in studying nursing was a decided asset to the wife and mother. In addition, as Dr. Stanton has pointed out, such a profession entails practically no expense in acquiring it, and places them in a position to earn a good livelihood, and be independent should they so desire. We accordingly got up an appeal to high-school girls in pamphlet form, carrying these ideas, and filled the class very easily.

DR. G. SCOTT TOWNE, Saratoga Springs: I congratulate the managers and the staff of the Amsterdam Hospital on the type of superintendent which they seem to possess. The popularity of any hospital is in no small measure dependent on the disposition of the superintendent and her ability to create friends for it. The success of the scheme inaugurated by the superintendent mentioned by our friend from Amsterdam is indeed flattering and is deserving of careful consideration. This brings to my mind, however, the fact that all hospitals are not presided over by this type of superintendent. The majority of them are women of middle age, who have become embittered with the world in general in the conduct of their profession during the previous years and who are temperamentally unfit for the position. It is a rule for the majority of these superintendents to conduct their training schools on a morale based upon fear. The young women who enter training are neither slaves nor drudges and should not be treated as such. These young women have passed the period of childhood and are seriously and earnestly pursuing a course of higher education for a definite profession, and if one of their profession, in the capacity of superintendent, whose hospital training was not superior to their own, tries to subject them to unnecessary severity, and sometimes positive abuse, in the conduct of their training, it is all wrong. It is my judgment that

superintendents should be especially trained for their position. At Skidmore College in Saratoga Springs, there was introduced this year, as part of their curriculum, a course combining three years of college work and two years of hospital training leading to the degree of Bachelor of Science. This to my mind, is certainly a step in the right direction towards finally securing superintendents of hospitals, who are properly trained.

The figures quoted by Dr. Stanton on the charges made for hospital accommodations and private rooms is illuminating, to say the least, and I think is beyond all possible question of dispute. The public feel that they are being gouged, and I think justly so. This fact coupled with the attitude of the average hospital superintendent towards the patients and relatives and friends of patients is making it increasingly difficult to maintain the popularity of the hospital. Certainly 85 per cent of all the people cannot afford the excessive charges imposed upon them by the various hospitals for the private rooms. I have had a very recent experience with this condition in which the husband of the patient justly felt that he had been gouged with the excessive charges, which were out of all proportion to the services rendered by the hospital. Coupled with this fact, he was made to feel that it was a matter of absolute indifference to the officers in the hospital as to whether he liked the accommodations or the price. He stated to me most emphatically that he would never be imposed upon in this manner again.

Another portion of Dr. Stanton's paper referred to the shortage of nurses and the remedy for this condition. There certainly will have to be a finer distinction drawn in the nursing profession between competence and incompetence. There will also have to be an adjustment of fees in keeping with the breadwinner's ability to pay for the nurse's services. With reference to hospitals, all commercialism must be entirely eliminated and a price charged for rooms and ward services within reach of the average person and a feeling engendered by the officers in the hospital that the patient and his friends are actually welcome there and that everything will be done within reason to make the patient's stay in the hospital as comfortable as possible.

DR. T. AVERY ROGERS, Plattsburg: It would be a fine thing if all the sick were in financial condition to enable them to afford the services of the highly trained graduate nurse.

We must face conditions as we find them, and we all know that the great majority of persons cannot employ a nurse in their own home, so in case of serious illness are forced to enter a hospital where nursing service is provided. At present there are not enough hospitals to take care of all the sick and there is a demand on the part of

many persons of moderate means for nursing service which is within their means. In some cities and towns this demand is met by Community Nurses.

Many so-called Practical or Domestic Nurses are practicing without authority. Many of these have had no training, or slight training, and some have taken correspondence courses in nursing.

We probably all agree that the place to train nurses is in a general hospital under competent instruction.

In my opinion short courses should be given by hospitals to young women who want to learn the necessary rudiments of nursing.

This would not qualify them to become experts or to take care of difficult surgical cases, but would teach them to perform the more common nursing procedures and to enable them to carry out the directions of the physician. They could be taught the elements of dietetics and the principles of infection.

A few months of such instruction would be of great value to the nurse and would also be of economic value to the community. A nurse who completed a year's course in an authorized hospital would be entitled to take an examination in practical nursing and be registered as such by the State.

RECENT PROGRESS IN THE COMMUNICABLE DISEASES OF CHILDHOOD.

By CHARLES HERRMAN, M.D.,
NEW YORK CITY.

2. SCARLET FEVER.

ALTHOUGH several attempts have recently been made to produce scarlet fever experimentally, the character of the infectious material remains as great a puzzle as ever. As Hektoen says, it is exceedingly doubtful whether a single positive result has ever been obtained. The view of Szontagh that scarlet fever is simply a modified angina in which an eruption is also present, has not been generally accepted. Scarlet fever has all the characteristics of a specific infectious disease, and one attack almost always protects against a future attack. The disease is to a great extent spread through mild unrecognized cases and carriers. Inanimate objects play a very unimportant part. The desquamating scales do not carry the infection, and "return cases" are probably due to carriers or patients who still have an infectious discharge. Although an isolation of thirty days is necessary in most cases, in hospitals for communicable diseases, where the patients are under complete control, mild cases without discharges could be released at an earlier date, thus saving the institution a certain amount of expense.

The diagnosis in atypical cases may be extremely difficult. Most of the cases of so-called

"surgical scarlet," are true scarlet fever, as it is a well known fact that patients with open wounds from burns, vaccination, phimosis operation, etc., are more susceptible to infection. A certain number of the very mild cases of scarlet fever are probably examples of the fourth disease.

The Rumpel-Leede phenomenon, which is due to an increased permeability of the capillary vessels is of some diagnostic value. Recently the so-called obliteration or blanching phenomenon has been described. This consists of a blanching of the skin at the site of the injection when 1 cc. of normal or convalescent serum (more than three weeks from the onset of the disease) is injected at a point where the eruption is distinct. In true scarlet fever at the site of the intradermal injection the rash disappears in an area from the size of a quarter to that of the palm of the hand. This sign may prove valuable in differentiating genuine scarlet fever from scarlatiniform rashes due to other causes, the Duker-Filatow disease, serum, toxic and drug rashes.

Bullowa recommends the removal of infected tonsils in selected cases of scarlet fever during the course of the disease. There is no doubt that cases with marked throat symptoms run a more severe course. Children with infected tonsils should have them removed, so that if they later contract scarlet fever, it is more likely to be of a mild character.

Attempts have been made to protect children against infection with scarlet fever by the use of convalescent serum. It is much more difficult to prove the value of such a procedure in scarlet fever than in measles, because 97 per cent of all children, not protected by a previous attack, will contract measles when exposed, whereas only about 25 per cent under the same circumstances will contract scarlet fever. From 15 to 30 cc. of convalescent serum is injected into the child as soon as possible after exposure to infection. Further trial of the method is necessary to determine its value.

In the treatment of severe toxic cases of scarlet fever, much larger doses are necessary; from three to eight ounces are usually used. When injected early the results have been very good. In hospitals for communicable diseases where donors are available the method is not difficult to carry out. Although some improvement may follow the injection of normal serum, the effect is not so striking as when convalescent blood is used. As it is important to introduce it as early and as quickly as possible, transfusion would seem to offer the greatest hope of success. The beneficial effect is shown in a lowering of the temperature, and an improvement in the pulse and the general condition. Septic cases and complications are not noticeably improved. I have had an opportunity of employing the method in only three cases, all of which proved fatal. However, as the treatment was carried out late in the disease, I do not consider this as a fair test of its value.

Deaths

- BARNES, ETHAN ALLEN, Plattsburg; University of Vermont, 1885; Member State Society. Died March 21, 1923.
- BREGLIA, JOHN E., New York City; Cornell Medical College, 1909; Member State Society. Died March 19, 1923.
- CORMAN, JOHN W., North Tonawanda; Toronto, Canada, 1874; Fellow American Medical Association; Academy of Medicine; Member State Society. Died February 8, 1923.
- DINGMAN, WILSON C., Poughkeepsie; Medica-Chirurgical, 1906; Fellow American Medical Association; Member State Society; Surgeon Mansion Square and Vassar Brothers' Hospitals. Died February 27, 1923.
- GERSTER, ARPAD G. C., New York City; Vienna, 1872; former president, American Surgical Society; former vice-president, New York Academy of Medicine; N. Y. Surgical Society; Member German Surgical Association, of Berlin; Member Royal Surgical Society of Budapest; Fellow American College of Surgeons; Member State Society; Consulting--Surgeon Mt. Sinai. Lenox Hill and Isabella Heimath Hospitals. Died March 11, 1923, aged 74.
- HENRY, NELSON H., New York City; Physicians and Surgeons, New York City, 1879; Fellow of New York Academy of Medicine; Member State Society; former Adjutant-General New York State; Major-General N. G., N. Y., retired; former Collector of the Port of New York; Member of many military associations and patriotic organizations. Died, March, 1923.
- HALLOCK, LUTHER REEVE, New York City; New York University, 1888; Fellow American Medical Association; Member State Society. Died March 19, 1923.
- HARRIS, BURTON, Brooklyn; College of Physicians and Surgeons of New York, 1904; Fellow American Medical Association; Fellow American College of Surgeons; American Urological Association; Member State Society. Died March 6, 1923.
- HERRICK, WILLIAM POST, New York City; College of Physicians and Surgeons of New York, 1898; Fellow American Medical Association; Fellow American College of Surgeons; American Urological Association; American Public Health Association; Academy of Medicine; Member State Society; Chief Surgeon and Clinical Director U. S. Public Health Hospital No. 70. Died March 13, 1923.
- LEO, SIMEON NEWTON, New York City; Bellevue Medical College, 1869; Fellow American Medical Association; American Surgical Association; Academy of Medicine; Member State Society; Physician in charge Home Aged and Infirm. Died March 9, 1923.
- LEVIN, WILHELM, New York City; New York University, 1895; Member State Society; Physician Lenox Hill Dispensary. Died March 13, 1923.
- MITCHELL, SAMUEL, Hornell, New York University, 1879; Fellow American Medical Association; Member State Society; Oculist and Aurist, St. James and Bethesda Hospitals. Died March 25, 1923.
- RANSOM, JULIUS B., Dannemora; University of Vermont, 1880; Fellow of the American Medical Association; Member State Society; Member National Society for Prevention of Tuberculosis; Physician St. Lawrence State Hospital, Champlain Valley Hospital and Clinton Prison; former president Fourth District Branch Society. Died March 18, 1923.
- SMITH, GEORGE ALBERT HAYES, Freeport; Long Island College Hospital, 1898; Member State Society. Died February 10, 1923.
- WYLIE, WALKER GILL, New York City; Bellevue Medical College, 1871; Fellow American Medical Association; American Gynecological Association; Academy of Medicine; New York Pathological Society; New York Obstetrical Society; Alumni Bellevue Hospital; Member State Society. Died March 13, 1923.

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THE ACADEMY OF MEDICINE.

On April first the first hundred thousand had been subscribed for the fund which the "Committee of Sixty" is raising for the purchase of a free and clear site for the new building at Park Avenue and Sixtieth Street. The needle of the Sphygmomanometer is pointing higher day by day, but there are only a few days more for the completion of the drive for the \$250,000 needed.

Every physician in the metropolitan district and those others who so frequently find the facilities of the Academy valuable to them, should contribute to the attainment of this ideal.

A competent housing of the great library, second only to that in Washington, and of the many educational activities which are either cramped or impossible in the present building, will be an accomplishment of interest and value, not only to the physicians of Greater New York, and the near-by sections of New Jersey and Connecticut, but to all of the profession of the country.

N. B. V. E.

A FORUM FOR NURSES.

In opening a column for nurses and news of nurses, Dr. Ferris feels that the interests of the Medical and Nursing professions are so interdependent that better understanding of the problems which seem so pressing at this time may be advanced by giving space in the JOURNAL to free discussion by both nurses and physicians.

Those who are concerned with the education of nurses are holding standards as high as compatible with justice to the public they serve and to themselves, and welcome constructive criticism which carries with it the sympathetic support of the Medical profession, and inspires mutual co-operation.

We shall be glad to have communications from nurses and physicians to this department of the JOURNAL.

N. B. V. E.

ADVERTISERS AND EXHIBITORS.

We wonder whether all of our readers appreciate the fact that every advertisement appearing in this JOURNAL, and in our Directory, is carefully studied and must measure up to the standard of ethics, and guaranteed reliability, strongly maintained by our Council, and that many of them have already, before they came to us, passed the searching scrutiny of those who censor advertising material for the publications of the A. M. A.

A dependable advertiser strengthens a publication with its readers and, in return for the material help that he gives to finance it, deserves cordial support and patronage.

Every exhibitor at our annual meeting must also receive an approval which guarantees the truth of his representations and thus warrants

the confidence of our interest and our investment. The commercial exhibits at our next annual meeting will be conveniently located on the same floor of the Waldorf-Astoria Hotel upon which the Section Meetings will be held, so that every one attending this meeting may, without loss of time, easily discover the things that interest him and make the purchases of the standard articles he needs, or the very latest equipment that he thinks may best serve him in his work.

Our annual meetings are of the greatest possible value as they give us opportunities for absorbing and exchanging the latest ideas in the development of the science and practice of medicine and surgery, and also for studying the newer diagnostic, therapeutic, and surgical instruments upon which many of us are dependent.

N. B. V. E.

THE OPPORTUNITY OF THE MEDICAL PROFESSION.

TO those who for years have attended the State Medical Conventions and have listened to the various opinions and efforts of the constituted medical authorities to place upon the statute book laws which should be equitable and just not only to physician but to the people of the State, the recent conference with Governor Smith bids fair to be historic in its far-reaching effects. The Governors of past years have stated that the Medical Profession were not united in their own opinions, and therefore the necessary advice for legislation had to be secured from outside sources. How could the Governor give us what we wanted when it appeared we did not know ourselves?

Governor Smith has both asked and answered this question which is somewhat unique. The question was asked in his former administration but it has remained for his present tenure of office to answer it in the constructive way the medical profession have been asking for. He has most wisely invited as members of his Advisory Committee men who by years of service have been trained in matters of State administration and public welfare carefully sidetracking the rampant radicals, who by their vociferous racket made up in noise what they lack in constructive cerebral tissue. Our previous handicap has been that the dissention of a small group expressed at some of our conventions has given the legislators the idea that these agitators really represented something. To be fair to them they do—they give sane men an object lesson of what would become of us if we all acted in a similar way. Hence it may be worth something as leaven in the loaf.

But beyond this there are basic laws at work which must functionate if the democracy we live in is to endure. When men are gathered to-

gether in serious conference representing the Head of our State Society, past Presidents and Secretaries of the County Societies, Representatives of the State Board of Health, the Narcotic Department of the City and State, the State and College Departments of Education and our local Department of Health—when men of this character concentrate upon the solution of health and civic problems the Governor comes pretty nearly securing the best advice possible for his legal problems. The Committee was not honorary, but met and worked: not only this, but it appreciated the Governor's attitude and it responded in the same spirit.

We sympathize with the Governor in the responsibility of his high office. His obligations are myriad. The lure of patronage and the temptation to make politics a part of any medical legislation are a temptation. He has started with clean hands and we're frank enough to believe he will continue to keep them clean. It is the long game and the game worth while.

The Medical Profession should realize that this is their opportunity. The need is the need of the whole State and not a single community. We must learn to do business on a wholesale basis. Our problems are those of everybody's community not merely our own. New York City has a big population of drug addicts. They are a tremendous problem, both the criminal and non-criminal. The ambulatory treatment has failed. The State recognizes this, and just because forty men of the fifteen thousand physicians in the State cannot play fair, but seek personal gain the question is constantly referred to as a medical problem. The question is one for the police, not the medical profession—that is, not until the necessary police control is secured, and the medical profession can work with the proper assistance. The physicians of New York State have no idea of persecuting the drug addict. There has been too much wasted sympathy on the practical solution of his cure, but the fact remains that the Governor is conferring with us, is recognizing that the economic loss to the State is appalling, and it is our common problem. It is encouraging to likewise note the broader interpretation of the Medical Practice Act. It must be humiliating to the State Department of Education after its successful struggle in raising the standards of medical education to have legislators present bills of the Chiropractic character. To have men come forward and say we want this particular cult exempt from the rules and regulations of your Department. We will examine and license, and even censure if necessary, but hands off—this is holy ground. And not only this but we promise if you will permit every one of us to be licensed we will take every care that the coming thousands shall not get by. And we are living in anno Domini 1923.

The fact that the Medical Profession is waking up and taking themselves seriously is the main reason why the Governor is anxious and willing to make them a part of his official family. Certain of the Governor's problems must be our problems and we should be glad to assume them and not sit supinely by with nothing but a destructive criticism by way of suggestion. Governor Smith fortunately has been a chief executive long enough to know that a long list of names signed to a petition represents more enthusiasm than public opinion. At the same time the rest of our law making bodies are not supplied with the same amount of intelligence, and this sort of propaganda is used to good advantage by zealous legislators.

The Medical Profession is on trial. The Governor has met us more than half way. It remains with us to bury personal and sectional opinions for the good of the State. To stand together, supplying a constructive programme when called upon to do so. To disabuse the wrong opinion which seems so prevalent that we are a close corporation working jealously to prevent trespass, anxious to get all we can at the public expense, etc., etc. The fact of the matter is that a careful survey of the State shows that when the total amount collected by the doctors is divided by the number of men practicing it gives each physician \$900 to live on. I am reminded that a bricklayer gets ten dollars a day and a plasterer if he is good accepts sixteen dollars a day as an honorarium.

America is some thousands of miles from Italy, but thanks to Mussolini and his Fascisti, a new dawn of intelligence and stabilization is overtaking Europe. Maybe a little of the same spirit if injected into our lawmakers might restore the legislative bodies to a condition of stabilized sanity. We may be asking too much when liberty is misinterpreted into license to expect the machinery of government to escape its influence. Recognizing the danger let the Medical Profession ask for what is sane and sensible, backed by their unselfish devotion to the sick, their appreciation of their economic duty to the State, and a willing spirit to listen to those who differ with them, but with an unswerving spirit to stand by principles of right and justice. This course has stood the test of time and will still be the active factor in the guidance of men's affairs long after we have all passed into the discard.

O. S. W.

EXAMINATIONS AND CERTIFICATES OF LUNACY.

A married man, the father of several children, was, upon an examination by three physicians, examiners in lunacy, who had been duly appointed by a judge of the County Court, found to possess ideas of persecution, exaggerated ego,

great ideas of his business ability, but had always been a failure; had also been subject to paroxysms of uncontrollable temper. After such examination the physicians made a certificate of lunacy, and the person was committed, pursuant to the provisions of the State Insanity Law, by a judge of the County Court to one of the State hospitals for the insane. He was retained in the hospital for about three months, at the end of which time he was discharged under a writ of habeas corpus. During his stay in the hospital he was twice examined by the medical staff of the hospital and found to be sane by all the members of the medical staff, except one. After release from the hospital, he instituted separate actions against each of the three physicians, charging them with having made a false and fraudulent certificate of lunacy and sought to recover damages for his incarceration in the State hospital.

One of the actions recently came on for trial and resulted in a decision of the Trial Court awarding a verdict of \$375 to the plaintiff, which verdict has been appealed on behalf of the physicians to the Appellate Court.

From the defendant's evidence it was shown that the examination made by the physicians was fuller and more extensive than appeared in the certificate of lunacy. The Court in its opinion, said:

"To place him (the plaintiff) in an insane hospital was perhaps a very charitable and merciful thing to do as the circumstances then appeared to those who did it. He was not insane and it was negligent and wrongful to place him in a hospital for the insane and for this he must be compensated by those legally responsible for it."

The Court in this case held that examiners in lunacy are not judicial or quasi-judicial officers; but, while not liable for errors of judgment, are bound to exercise ordinary care and prudence in making examinations and to make due inquiry into the sanity of the person examined, and if they fail in this they are liable in an action for damages.

This decision is another example of the hazards of the practice of medicine and the probable liability to which a physician may be subjected.

The mental examination of persons and the making of certificates of lunacy, being acts performed by the physician in the performance of his professional duties as such physician, are covered by the State Society's group plan of insurance. If you have not taken advantage of the group plan of insurance, or if your present policy is about to expire, now is the time to participate in the advantages of this group insurance, or to renew your present policy.

R. O.

MEDICAL ADVISORY COMMITTEE.

March 24, 1923.

The committee appointed by the Governor on February 26th, at the conference held in the Executive Chamber, has rendered its report which in the main was along the lines of the conference.

RURAL HEALTH PROBLEM.

The committee pointed out that only in a very few spots in the State does the health problem enter in; that in these spots there is debatable ground whether physicians should be sent there and subsidized; that possibly the State might aid in the building of small laboratories, but only after the State Department of Health has put through an educational campaign to urge the local County authorities to meet their own needs; and that when such are constructed, local support and local control produce the best results; and only when subsidy is utilized should central control be provided.

The committee recommended that the Governor create a small committee to investigate, composed of members of the State Department of Health and members of the Medical Society of the State of New York, and that physicians up-state being more intimately acquainted with local conditions could best serve on such committee.

MEDICAL RESEARCH.

It is the opinion of the committee that laws surrounding the conditions of laboratories for research and investigation are adequate, and there is no need for any modification in any way of these laws.

MEDICAL EDUCATION.

1. The committee recommends that present educational requirements in the healing art be maintained.

2. That the present laws being necessary and satisfactory to enforce a high standard of service, be in no way modified.

3. That no exceptions, exemptions or provisions in any respect invalidating the present laws be enacted.

MEDICAL PRACTICE ACT.

The committee recommended the enactment of a bill based upon the premises of the bills which have been introduced in the past few years by the Medical Society.

NARCOTIC DRUG PROBLEM.

The committee believes that ambulatory treatment of drug addicts should be prohibited by law; a policy of segregation and confinement adopted in its stead; that most of the habitues are criminal with criminal records in the courts; that the illicit possession, sale or distribution of drugs be made a misdemeanor; that the essential provisions of the Harrison Narcotic Act be embodied in a State law similar to the Narcotic Amendment to the New York City Sanitary Code; that provisions for registration and re-duplication of blanks should be omitted from state legislation and the profession be allowed to prescribe or administer narcotics in ordinary practice without restriction.

Two bills have been submitted by the committee to the Governor, one relating to the Drug Problem and one relating to the enforcement of the Medical Practice Act, and your Committee on Legislation is awaiting the message from His Excellency, the Governor, which he is about to send to the legislature respecting his attitude and ideas on these subjects.

*Committee on Legislation, Medical Society
of the State of New York,*

JAMES N. VANDER VEER, *Chairman,*
FRANK D. JENNINGS,
W. WARREN BRITT.

Correspondence

The Council, at a meeting held in Albany, April 20, 1922, moved, seconded and carried:

That the Journal be not used in any way suppress any expression of opinion; and that its correspondence columns be open for all proper communications; and that "proper" communications will be deemed those which are not slanderous or libelous in their nature.

MEDICAL ALCOHOLICS.

Herkimer, N. Y., March 19, 1923.

EDITOR, NEW YORK STATE JOURNAL OF MEDICINE:

DEAR DOCTOR:

The letter of Dr. Zwisohn in this month's issue of the JOURNAL, commenting on my letter of the January issue in which I had something to say about the letter of Dr. Ferris on medical alcoholics, is not a very scientific production because it mixes up statements that are true, statements that are half true, and statements that are not true at all, in order to give his views *in toto* an apparent plausibility. In this month's issue of the JOURNAL, Dr. Zwisohn has presumably found another of my letters, and it is a very good reply to his letter. Out of his imagination he draws some amusing and ridiculous ideas about me and my methods of practice. If he had read a few of my professional writings he would probably know very well that I treat not only diseases but individual human beings, and that I have done considerable to advance that practice by educated medical men.

As already stated, I do not consider that the use of ethyl alcohol as a medicine has ever been placed on a scientific basis, but if Dr. Zwisohn can now give us information which will place it on such a scientific basis that doctors who are well informed on materia medica will logically prefer it in certain cases to any other medicines, we will all be delighted to get that information from him. Possibly he can give us information which will also place its associate, wood alcohol, in the list of approved and preferred medicines! If Dr. Zwisohn is at all familiar with the history of medicine he knows that antiquity of the use of any medicine or form of treatment is not in any sense a guarantee of its value in this year 1923. If there is anything characteristic of the history of medicine it is progress, whereby better things replace less important things, and if this were not a fact I should not spend a moment on this discussion. Every drug, or every substance which is supposed to be a drug, has a certain ascertainable action on human beings in health and disease, and no substance can be intelligently used in comparison with other well known drugs unless its action is known. The most exacting matter in all use of drugs is to select the one which in the individual case has the best effect, and I hold that no case exists in which alcoholics, either ethyl or methyl, are the remedies of intelligent choice.

The idea of Dr. Zwisohn linking me and all prohibitionists with anti-scientific healers is about as farcical and unscientific as he could possibly find in his imagination. The main point about this whole matter is that the use of alcoholics as medicines never has and does not now rest on scientific grounds. There is not any properly scientific ground for its use by informed medical men. It can be used, of course, but so can many other things without reason. And I wish to say that I am very, very far from being a therapeutic nihilist, as anyone who has read any of my medical writings would know. I agree with Dr. Zwisohn's idea that the medical practice laws should be enforced as well as the legal practice acts and other similar laws which protect the people from inferior and injurious things. And for the same reason thoughtful people are in favor of the enforcement of the Volstead Act and the Eighteenth Amendment. Dr. Zwisohn and every other human being would be in favor of such enforcement, if they were informed as they should be, and if they would act on correct reasoning.

Yours for a progressive history of medicine.

GEORGE E. BARNES, B.A., M.D.

STATE DEPARTMENT OF HEALTH NOTES.

FAILURE TO USE DIPHTHERIA ANTITOXIN.

As previously reported in these notes, several instances have come to the attention of the State Department of Health in which physicians called to treat cases of diphtheria have failed to use antitoxin, or have used it too late. One physician stated that "he did not believe in it." Believing that the importance of this matter called for all possible measures to impress upon physicians and health officers the necessity of using so well established a therapeutic and preventive agent, the State Commissioner of Health, Dr. Herman M. Biggs, brought the reports of these cases to the attention of the Public Health Council, which has instructed the Commissioner to communicate to every physician and health officer in the State the views expressed in the following resolutions:

WHEREAS, The Public Health Council has been informed by the Commissioner of Health of numerous deaths which have occurred from diphtheria in different parts of the State due to the failure to use diphtheria antitoxin or to its administration too late in the course of the disease to be effective, and

WHEREAS, In the opinion of the Public Health Council there can be no justification for any physician holding an adverse opinion as to the specific value of diphtheria antitoxin as a therapeutic agent in the treatment of diphtheria, be it

Resolved, That the Commissioner of Health be again requested to specially direct the attention of the physicians of New York State to these facts and to the unnecessary deaths which have occurred; and be it

Further Resolved, That the Commissioner of Health request the local health officers immediately upon receipt of a report of a case of diphtheria to ascertain whether the regulations of the Sanitary Code and of the State Department of Health are being complied with, and whether diphtheria antitoxin has been administered to the patient, and also whether antitoxin has been administered as a prophylactic measure to other members of the family wherein such case exists.

TUBERCULOSIS CLINICS.

During the year 1922 the Division of Tuberculosis endeavored still further to advance the cooperation between practicing physicians and the State Department of Health in reaching and diagnosing all possible cases of tuberculosis. Two physicians connected with the Division conducted during the year forty-five clinics in sixteen different counties, and examined more than 1,000 patients. Of these 16 per cent were classified as positive, 30 per cent suspicious, 11 per cent negative, and 43 per cent observation (in this group being placed those patients, especially children, who, though having no suspicious signs, were either contacts or below par physically).

Practically all of the clinics were held in the rural districts, the idea being to offer assistance in localities where hospitals with tuberculosis dispensaries, X-ray and other diagnostic aids were not available. After conferring with the local health officers, physicians and nurses, the Sanitary Supervisors determine where and when clinics are desired. Little publicity is used, the clinics being conducted on a consultation basis in cooperation with the local physicians, who are invited to bring or send selected cases. Under the direction of the physicians the nurses search out contacts and, when necessary, arrange for transportation of patients. Each patient presents a card signed by his family physician, to whom a detailed report giving the physical and X-ray findings, diagnosis and recommendations is mailed. As a result, practically all applications for examination have symptoms suggesting pulmonary disease, those requiring care are placed under medical control, and better co-operation with the family physician is secured.

More than 130 local physicians have attended the clinics, assisted with the examination of their patients, and taken advantage of the opportunity to compare physical and X-ray findings. While the clinics are for diseases of the lungs, numbers of obscure and interesting cases are referred and often quite a general physical examination is necessary. It is felt that assistance has been rendered by confirming the diagnosis in some of these cases and eliminating the possibility of tuberculosis in others.

Since radiography plays a very important part in the diagnosis of diseases of the lungs, the portable X-ray outfit used by the Division has been of great assistance and has increased the interest in the clinics.

"CONTAGIOUS GANGRENE"

A death certificate recently filed in the case of a girl eight years of age gave "contagious gangrene" as the cause of death. The matter was referred for investigation to the district sanitary supervisor who reported that upon visiting the home he found a family consisting of a father, mother and seven children, very ignorant, and of a very low grade of mentality. One other child lives with the grandmother about one mile away. The home conditions were poor and insanitary and the inmates unclean. Fear of possible punishment for not having taken the sick child to a hospital made the mother very reticent in giving the history of the child's illness. All that the sanitary supervisor could learn was that there were in the family three girls and one boy, aged respectively fourteen, ten, three and five years, who had sores on the bottoms of their feet and between their toes, which were said to be of the same nature as the sore which had afflicted the girl who died. The child that died had been sick for about four months, beginning with a sore on the sole of the left foot back of the great toe. This continued to grow worse, the tissues became necrotic, and finally the leg up to the knee became involved in what the doctor described as dry gangrene. According to the attending physician and the mother there had been no "fever" during the child's illness. Amputation is said to have been refused by the parents. No examination of the urine, no Wassermann and no blood count were made.

Referring to the three year old child, the report of the Sanitary Supervisor states that she has lost "the first joint of the middle toe of her right foot." This is a perfectly clean, smooth amputation. The mother said she thought the toe took about a week to drop off. The four children who had been attacked by the disease are now all apparently well. Dates of onset could not be obtained. The diagnosis still remains in doubt. The Division of Communicable Diseases would appreciate any information or suggestions regarding similar cases, or in regard to the probable diagnosis of this case.

PHYSICIANS AND THE VENEREAL DISEASE PROBLEM.

The annual report of the Division of Venereal Diseases for 1922 discusses evidence of increased interest and activity among the practicing physicians of New York State in the campaign to control venereal diseases. The reports of diagnosis and treatment for the year show that although there was a slight increase in the number of cases reported, there was a decrease of new admissions to free clinics. This is a very wholesome indication that the medical profession is supporting the program of venereal disease eradication. Proof of the accuracy of the observation is established, for more than 34 per cent of practitioners listed in the medical directory have registered cases of syphilis and more than 12 per cent have registered cases of gonorrhoea during the year. If we deduct from the total number of physicians registered in the State those who no longer practice, and those who do not look for venereal diseases because of the character of their practice, it is probable that we shall find that about half of the general practitioners are more or less actively engaged in anti-venereal work.

DEPARTMENT OF NURSES AND NURSING.

Nurses' Records and Reports.

By ALBERT WARREN FERRIS, M.D., F.A.C.P.,
WATKINS, N. Y.

THE nurse, like the physician, is progressive. Therefore she welcomes analyses or suggestions which will inspire her to greater effort, or to larger experience, or to better achievement, or to a return to standards.

The casual way in which some well-trained but easy-going nurses make reports or fill the blanks in the Nurses' Daily Record needs emphatic attention, if this decadence is to be checked. The heads of the columns in the Daily Record make explicit suggestions, and it is to be taken for granted that all training schools teach seriously the art of reporting and charting. Yet surprising instances occur, all too frequently, of laxity or of important omissions.

On the daily chart of a gravely ill patient occupying a bed in a general medical and surgical hospital, no record was made of the visit of a friend, who returned later with a lawyer, under whose guidance a will was completed according to replies made by the patient, who signed the will in the presence of witnesses, one of whom was secured after consultation with the nurses. The visitor described, who brought the lawyer, returned and made another visit which was also ignored by the nurse who noted no visits except those made by the physician. These omissions greatly discredited the hospital in a hearing in the Surrogate's court later.

In another instance in the case of a feeble patient whose nutrition was a vital matter, the only information of the amount and character of the food taken by the sufferer was expressed by the terse phrase, "soft diet." This phrase is as useful and informing as if one should record in the temperature column the word, "high"; or in the pulse column the word, "rapid."

Such statements are all inferences which the doctor can make perfectly well if the facts are stated. He wants recorded the figure denoting the number of beats per minute, the pulse character, as regular, elastic, of good strength and volume or the reverse, and the actual degree of the temperature. In like manner, he needs the actual number of teaspoonfuls of a solid food of each kind and of ounces or less of a fluid food ingested, and he should insist upon such recorded information.

It is not as uncommon as it should be to read on a chart, "Patient's condition unchanged," which is an indication of indolence on the nurse's part, which necessitates the doctor's turning back to some day's record in which the condition is actually described. The writer has in mind a

patient whose condition is "unchanged." What idea does that word convey? The fact is he has been dead for fifteen years. "Condition unchanged."

Let us have accurate and intelligent observations recorded by the nurses, and we will be able to make our own inferences and have a basis for judgment.

Now as to observing and making a special report. In a recent instance, Dr. Q. was called to attend a patient in the absence of his own physician. A trained nurse preceded Dr. Q., and remained with the patient a short time after he left. This was the report made by Dr. Q. to the patient's regular physician:

"At 6 p. m. was summoned by telephone and found Mr. H. as follows: Facies pale as usual; L. side of face twitching and drawn to left. Body curled over to left and face convulsively drawn to pillow on left. Left leg rigid, left hand clenched and trembling. Pupils widely dilated. Pulse at wrist soft, elastic, full, irregular and 68. Surface perspiring. Patient conscious, answering questions with difficulty and with thick utterance, a motor dysphasia. Delirious; talked incoherently of "services I must preform," repeating this phrase. (Whole picture resembled Jacksonian epilepsy.) Asked if he had pain, answered "No," and then on wife's repeating the question two or three times, clutched the right flank and said "yes." Gave hypodermic of atropia sulph. gr. 1/300."

Dr. Q. had requested the nurse to make a report to him of what she had observed with her trained mind, to be turned over to the family physician, with his. This was her report:

"When I first saw Mr. H. he was lying supported in a sitting posture; his head seemed bent. I gave him aro. spts. of amonia but he swallowed it with difficulty; he talked, but with very much difficulty and could not be understood. After being there for a very few moments his left arm trembled for a short time, and that repeated for two or three times. Dr. Q. arrived very shortly."

Was this report quite adequate? Was it not about what a housemaid or other lay person might state if entirely untrained to observe or report?

Another point to which attention should be drawn is the use of undignified slang phrases in place of accurate statements, be they scientific or not, usually employed in oral statements. Examples are: "all in," instead of *exhausted*, or *sleepy*; "the patient went up in the air," instead of *lost his temper*, or *became excited*; "feels bad," instead of *is nauseated*, or *is weak*, or *is in pain*, or *is faint*, or whatever the condition may really be. These slouchy phrases generally mean carelessness or laziness.

Surely nothing is needed but a more impressive emphasis by the training school teacher and a livelier sense of responsibility on the part of the nurse.

NOTES ON NURSES AND TRAINING SCHOOLS.

SARATOGA HOSPITAL, SARATOGA SPRINGS.

An addition to the hospital is being erected, consisting of a Maternity Department and a Laboratory, for the complete equipment of both of which the funds are available. There will also be in this building a Demonstration Room and Class Room for the Training School.

The Training School, heretofore receiving ward and private room teaching by the assistant superintendent, has been put in the charge of a highly trained and full time instructress. In November, 1922, Miss S. Powne was appointed superintendent, and she is gradually installing the eight-hour system.

Miss Rose King, class of '22, was married recently to Mr. Samuel King.

LOCKPORT CITY HOSPITAL, LOCKPORT.

A new maternity annex is now under construction. The Training School has been discontinued for the present.

Miss Vera E. Kinley, R.N., has recently become Surgical Supervisor, and Miss Florence Farr, R.N., has become Assistant Supervisor. Miss Nettie A. Springfield, R.N., is Superintendent.

N. Y. ORTHOPEDIC DISPENSARY AND HOSPITAL, N. Y. CITY.

This hospital has no training school. The Superintendent is Miss Theodora S. Root.

GENERAL HOSPITAL OF SARANAC LAKE, SARANAC LAKE.

The number of beds is too small to permit of the maintenance of a training school. The Superintendent is Miss Emily Denton.

N. Y. POLYCLINIC HOSPITAL, NEW YORK CITY.

The hospital has very recently been returned to its own management by the U. S. Public Health Service, after four years' use in the treatment of disabled veterans of the World War. The teaching of pupil nurses will soon be resumed. The Superintendent is Dr. John M. Lawler.

HOSPITAL OF THE GOOD SHEPHERD, SYRACUSE UNIVERSITY.

Dr. C. H. Young, formerly Superintendent of the Presbyterian Hospital, New York City, has been appointed to fill the vacancy caused by the resignation of Miss Nettie R. Hamill, as Superintendent, on February 12th.

THE SWEDISH HOSPITAL IN BROOKLYN.

The pupil nurses held a bazaar March 17th, at the Nurses' Home, for the benefit of the school. The Superintendent is Miss Hilda V. Blom.

CITY HOSPITAL, SALAMANCA.

The hospital reports overcrowding. The Superintendent, since the city took charge, three years ago, has been Miss Alice E. Phillips, R.N.

HYDATIDIFORM MOLE.

A further study of hydatidiform mole has been undertaken at the Chicago Lying-in Hospital especially in regard to the frequency of malignancy following this condition. An attempt is being made to collect case reports from outside physicians. Cases reported by physicians will be greatly appreciated, and the physician will be given due credit in any literature published.

Address communications to

ROBERT B. KENNEDY, M.D.,
Chicago Lying-in Hospital,
Chicago, Ill.

WOMEN'S MEDICAL SOCIETY OF NEW YORK.

The Women's Medical Society of New York State will hold its eighteenth Annual Convention in the Mc-Alpin Hotel, New York City, on Monday, May 21st.

Many of the doctors will remain for the Scientific Session of the State Medical Society. Active membership in the Women's Medical is dependent upon membership in the County and State Societies.

The size of the State Society, and the many problems confronting the profession to-day makes the grouping of those interested in special activities very necessary.

Besides the routine business, the following splendid program has been planned by Dr. Rosalie S. Morton:

The Scientific Session will be composed of a symposium on "Eye Diseases in Relation to General Medicine." Dr. Clara A. March, first paper—others to be announced later.

"Feeble Mindedness in Relation to Prostitution," Dr. Alberta Greene.

"Early Symptoms of Carcinoma of the Cervix," Dr. Elise L'Esperance.

"Observations Concerning Gastric Disturbances," Dr. Rose R. Donk.

Arrangements for the convention are in the efficient hands of Dr. Ethel Doty Brown, and we are fortunate in having Dr. Harriet F. Coffin in charge of the banquet arrangements.

The dinner promises to be of more than usual interest, with special music and toasts. If possible make reservations for the dinner before Saturday, May 19th, by sending check of \$4 to Dr. Ethel D. Brown, 26 Gramercy Park, New York.

The keynote of this convention is expressed in the following quotation: "Wrap more closely around us the Mantle of Determined Purpose."

This is the one opportunity of the year for us to meet both scientifically and socially.

Every medical woman is urged to come.

OREGON STATE MEDICAL SOCIETY.

The Board of Councilors and the members of the Oregon State Medical Society offer a day's excursion up the Columbia River Highway to all special trains of physicians passing through Portland on the way to, or returning from, the San Francisco Convention of the American Medical Association.

Members of the Society will meet the trains arriving in Portland in the morning or early afternoon, and take charge of the passengers who desire to take the trip.

This trip will take at least three hours each way, allowing time for dinner, so that trains could leave Portland in the evening any time after 10:30 p. m.

C. L. BOOTH, M.D., *Acting Secretary.*

NATIONAL BOARD OF MEDICAL EXAMINERS.

Examinations will be held as follows by the National Board of Medical Examiners:

Part I—June 25, 26, 27, 1923.

Part II—June 28, 29, 1923

Part I—Sept. 24, 25, 26, 1923.

Part II—Sept. 27, 28, 1923.

All applications for these examinations must be made on or before May 15th.

For further information apply to the Secretary, Dr. J. S. Rodman, 1310 Medical Arts Building, Philadelphia, Pa.

PRUNES.

Contributions Invited.

Philanthropies.

Most every steamer seems to bring
From way across the ocean
Some busted gent who wants to sell
Some new or ancient notion.

They come from every foreign land;
They come from every nation;
They feel they need some U. S. cash,
And we the education.

And all the press of our burg;
The pink, the white, the yellow,
Will spare no ink or precious space
To advertise each fellow.

We do not blame a bankrupt gent
For seeking better chanees
To make some change and to recoup
His busted up finances.

Of course we do not want to seem
In grace or tact as lacking;
Nor sordid motives to impute,
Or noble deeds attacking.

But why befog the real cause?
Why camouflage the issue?
We know that Kronen notes are worth
As much as paper tissue.

We know it takes a bale of marks
To feed a hungry belly;
And a pail of francs to buy
A half-way decent kelly.

That every day in every way
It's really getting harder
To patch the roof, or buy a shoe,
Or stock the empty larder.

Old Lorenz came to straighten out
This lame and crippled nation;
He claims we cannot live without
His bloodless operation.

It paid so well, he promptly sent
For all his sons and daughters,
To help him pull the Yankee's leg
They hastened 'cross the waters.

Barany's here to teach us more
Of labyrinthian function;
Some busted doe will soon arrive
With liederkranz inunction.

Old "doc" Coue just came across
From gay Patee—or Nancy—
"Ca Passe, Ca Passe," he says, and cures
All ills of flesh and fancy.

The crippled run as fast as deer;
The palsied romp and frolic;
"Ca Passe, Ca Passe," he blandly chants,
And cures them of the colic.

We don't condemn a needy chap
Who tries to make a living;
We may be lacking in finesse;
But we are fond of giving.

But as for philanthropic bunk,
The claim is worse than funny;
What makes them come in such a rush,
Is good old U. S. money.

DR. M. N. JASPER,
570 Park Avenue, N. Y. City.

Yes, and Soon.

"The time will come," thundred the lecturer on
women's rights, "when women will get men's wages."
"Yes," said a weak little man in the back seat, "next
Saturday night!"—*Pearson's Weekly* (London).

"I've come to fix that old tub in the kitchen."
"Oh, mamma! Here's the doctor to see the cook!"
Harvard Lampoon.

Epitaph.

Peacefully sleeping,
Lich Bill Lane.
In his Ford he tried
To derail a train.

A Fate Deserved.

"Sir, your daughter has promised to become my wife."
"Well, don't come to me for sympathy; you might
know something would happen to you, hanging around
here five nights a week."—*Honeycomb Briefs.*

Just as Noisy.

Mrs. Johnsing: "Ah thought you-all said you was
gwine to name your new baby 'Victrola,' but Ah hears
you-all done make a change."

Mrs. Moses: "Yes, Ah expected it would be a girl
an' Ah had decided to name her 'Victrola,' but she
turned out to be a boy, so Ah done name him 'Radio.'"
—*The Christian Advocate* (New York).

A peanut lay on the railroad track;
Her heart was all-a-flutter;
The 5:18 came roaring by;
Her heart froze stiff—she could not fly.
Toot, toot—peanut butter.

—*Anon.*

London Pokes Fun at Yankees.

In the main dining-room of Simpson's, the famous
restaurant in the Strand, there is a painting of the
quasi-historical incident of the dish of four-and-twenty
blackbirds being set before the king. Not long ago a
couple of English frequenters of the restaurant arrived
at a state of mind wherein the production of the fol-
lowing rhyme was achieved:

Four-and-twenty Yankees,
Feeling mighty dry,
Took a train to Canada
And bought a case of rye.
When the case was opened
The Yanks began to sing:
"To blazes with the President!
"God save the King!"

The parody is going the rounds of London's clubs to
the accompaniment of much laughter and feeble grins
from Americans.

Bad Case.

Mr. Tarr: "Doetah, whas de mattah wid Brudder
Snoops? What 'zeas do he 'peah to be 'flicted wid, in
yo' humble 'pinion?"

Doctor Dingfold: "Chronic chieken stealin' compli-
cated wid birdshot in de back, sah."—*The Watchman-
Examiner* (New York).

Medical Society of the State of New York

17 West 43rd Street, New York.

February 15, 1923.

The regular annual meeting of the Medical Society of the State of New York will be held on Tuesday, May 22, 1923, in New York City.

ARTHUR W. BOOTH, M.D., *President*.
EDWARD LIVINGSTON HUNT, M.D., *Secretary*.
17 West 43rd Street, New York.

February 15, 1923.

The regular annual meeting of the House of Delegates of the Medical Society of the State of New York will be held on Monday, May 21, 1923, in New York City.

ARTHUR W. BOOTH, M.D., *President*.
E. ELIOT HARRIS, *Speaker*.
EDWARD LIVINGSTON HUNT, M.D., *Secretary*.

117th ANNUAL MEETING.

Tuesday, May 22nd.

SCIENTIFIC PROGRAM.

ARRANGED BY THE COMMITTEE ON SCIENTIFIC WORK.

Parker Syms, M.D., Chairman, New York City.
William D. Alsever, M.D., Syracuse.
Elias H. Bartley, M.D., Brooklyn.
Edmond E. Blaauw, M.D., Buffalo.
Paul B. Brooks, M.D., Albany.
S. Philip Goodhart, M.D., New York City.
Eugene H. Pool, M.D., New York City.
Harvey B. Matthews, M.D., Brooklyn.
Owen E. Jones, M.D., Rochester.

Sub-Committee on Clinics.

Seward Erdman, M.D., Chairman; William W. Herrick, M.D., Frederic W. Bancroft, M.D., James P. Erskine, M.D., Irving H. Pardee, M.D.

SECTION ON MEDICINE.

Chairman—WILLIAM D. ALSEVER, M.D., Syracuse.
Secretary—CLAYTON W. GREENE, M.D., Buffalo.

Tuesday, May 22nd, 9:30 A.M.

SYMPOSIUM ON DIABETES.

"Bicarbonate of Soda in Diabetes Mellitus," Herman O. Mosenthal, M.D., New York.
"Experimental Studies in the Use of Insulin," J. J. R. MacLeod, M.D., and Frederick G. Banting, M.D., Toronto. (By invitation.)
"Diabetic Gangrene," John R. Williams, M.D., Rochester.
"The Treatment of Diabetes, With and Without Insulin," Elliott P. Joslin, M.D., Boston, Mass. (By invitation.)

Wednesday, May 23rd, 9:30 A.M.

"Treatment of Certain Cardiac Irregularities with Quinidin," Robert L. Levy, M.D., New York City.

SYMPOSIUM ON THE DIAGNOSIS AND TREATMENT OF DISEASES OF THE BLOOD.

"Problem of the Primary Anaemias," Charles P. Emerson, M.D., Indianapolis, Ind. (By invitation.)
"Problem of the Leukemias," Thomas Ordway, M.D., Albany. (By invitation.)
"Treatment of Anaemia by Transfusion," William W. G. MacLachlan, M.D., Pittsburgh, Pa. (By invitation.)
Discussion opened by Nelson G. Russell, M.D., Buffalo.

Wednesday, May 23rd, 2:30 P.M.

JOINT SESSION WITH SECTION ON PUBLIC HEALTH.

"Studies on Absorption of Drugs," David I. Macht, M.D., Baltimore, Md. (By invitation.)

SYMPOSIUM ON SERUM THERAPY.

"Pneumonia," Rufus I. Cole, M.D., New York.
"Poliomyelitis, Epidemic Encephalitis, Bacillary Dysentery, etc.," Simon Flexner, M.D., New York.
"Fundamental Considerations in the Treatment of Meningitides," James B. Ayer, M.D., Boston, Mass. (By invitation.)

Thursday, May 24th
Clinics.

SECTION ON SURGERY.

Chairman—EUGENE H. POOL, M.D., New York.
Secretary—EMIL GOETSCH, M.D., Brooklyn.

Tuesday, May 22nd, 2:30 P.M.

"Surgical Treatment of Gastric and Duodenal Ulcer," Grant C. Madill, M.D., Ogdensburg.
Discussion by Charles J. Hunt, M.D., and Harry M. Imboden, M.D., New York City.
"String Test for Diagnosis in Ulcer of the Stomach," Marshall Clinton, M.D., Buffalo.
"High Fixation of the Duodenum," Alfred S. Taylor, M.D., New York City.
Discussion by Walter L. Niles, M.D., and Harry M. Imboden, M.D., New York City.
"Ankylosis, Its Importance and Treatment by Arthroplastic Measures," Andrew R. MacAusland, M.D., Boston, Mass. (by invitation.)

Wednesday, May 23rd, 9:30 A.M.

"X-Ray and Radium Treatment of Cancer," Francis C. Wood, M.D., New York City.
"The Present Status of Radiation in the Treatment of Carcinoma of the Breast," Burton J. Lee, M.D., New York City.
Discussion by Harvey R. Gaylord, M.D., and Bernard F. Schreiner, M.D., Buffalo.
"Precise Diagnosis of Carcinoma of the Rectum," Frank C. Yeomans, M.D., New York City.
"Some Abnormalities of the Urinary Tract in the Male, with Surgical Measures of Correction," Oswald S. Lowsley, M.D., New York City.

Wednesday, May 23rd, 2:30 P.M.

"Surgical Treatment of Hyperthyroidism," George W. Crile, M.D., Cleveland, Ohio (by invitation).
Discussion opened by Martin B. Tinker, M.D., Ithaca.
"The Results of 300 Goitre Operations with Description of the Author's Operative Technique," George E. Beilby, M.D., Albany.
Discussion opened by L. W. Graham, M.D., Albany (by invitation).
"Experimental Thyroidectomy in Sheep," Sutherland Simpson, M.D., Ithaca.
"Certain Criteria of Management in Prostatic Carcinoma," Ernest M. Watson, M.D., Buffalo.

Thursday, May 24th
Clinics.

SECTION ON OBSTETRICS AND GYNECOLOGY.

Chairman—HARVEY B. MATTHEWS, M.D., Brooklyn.
Secretary—HUGH C. McDOWELL, M.D., Buffalo.

Tuesday, May 22nd, 2:30 P.M.

"Kidney Infections Complicating Pregnancy," Henry G. Bugbee, M.D., New York City.
"Diabetes as an Obstetrical and Gynecological Problem," F. Gorham Brigham, M.D., Boston, Mass. (by invitation).
"Sterility, Female," Edward Reynolds, M.D., and Donald Macomber, M.D., Boston, Mass. (by invitation).
"Sterility, Male," J. Sturdivant Read, M.D., Brooklyn.
"Gonorrhœa and Pregnancy," Emily D. Barringer, M.D., New York City.

Wednesday, May 23rd, 9:30 A.M.

SYMPOSIUM ON PRENATAL CARE AND MATERNITY WELFARE.

"From the Standpoint of the State," Florence L. McKay, M.D., Albany (by invitation).

"From the Standpoint of the Regional Consultant," James K. Quigley, M.D., Rochester.

"From the Standpoint of the Maternity Center Without Hospital Connection," George W. Kosmak, M.D., New York City.

"From the Standpoint of Prenatal Care with Hospital Affiliation," John O. Polak, M.D., Brooklyn.

Wednesday, May 23rd, 2:30 P.M.

"Cleft Lip and Palate in Young Infants," Truman W. Brophy, M.D., Chicago, Ill. (by invitation).

"Incidence of Cancer During Pregnancy," Barton C. Hirst, M.D., Philadelphia, Pa. (by invitation).

"Indications and Limitations of X-Ray and Radium in Obstetrics and Gynecology," Hervey C. Williamson, M.D., New York City.

Thursday Morning, May 24th.

Clinics.

SECTION ON NEUROLOGY AND PSYCHIATRY.

Chairman—S. PHILIP GOODHART, M.D., New York City.
Secretary—IRVING H. PARDEE, M.D., New York City.

Tuesday, May 22nd, 2:30 P.M.

"Fulminating Syphilis," E. Livingston Hunt, M.D., and Leila C. Knox, M.D., New York City.

"Infections of Mouth and Teeth in Relation to the Nervous System," Mark I. Schamberg, M.D., D.D.S., New York City (by invitation).

"Neurology in New York and the Treatment of Neurological Cases," Charles L. Dana, M.D., New York City.

"A Further Contribution to the Study of the Relation of Epidemic Encephalitis to Poliomyelitis," Marcus Neustaedter, M.D., New York City, William W. Hala, M.D., Astoria, E. T. Banzhof, M.D. (by invitation).

"Epidemic Encephalitis Treated With Sodium and Nucleonate, with Report of Cases," Joshua H. Leiner, M.D., New York City.

Wednesday, May 23rd, 9:30 A.M.

"Psychotic Residua of Encephalitis," George H. Kirby, M.D., New York City.

"The Sociological Aspect of Conduct Disorders in Children Following Encephalitis," Menas S. Gregory, M.D., New York City.

"Alienists and Criminal Trials, Reasons for Dissimilar Opinions," John F. W. Meagher, M.D., Brooklyn.

"Problem of the Stutterer," James S. Greene, M.D., New York City.

Wednesday, May 23rd, 2:30 P.M.

"Recent Advances in Treatment of Psycho-Neuroses," Thomas W. Salmon, M.D., Larchmont.

"Important Emotional Trends in Childhood," Edith R. Spaulding, M.D., New York City.

"Mental Hygiene and the General Practitioner," Frankwood E. Williams, M.D., New York City.

"Besetting and Other Morbid Fears," Tom A. Williams, M.D., Washington, D. C. (by invitation).

Thursday, May 24th

Clinics.

SECTION ON EYE, EAR, NOSE AND THROAT.

Chairman—EDMOND E. BLAAUW, M.D., Buffalo.
Secretary—EUGENE E. HINMAN, M.D., Albany.

Tuesday, May 22nd, 2:30 P.M.

"Evulsion of the Optic Nerve, with Report of a Case, and Presentation of the Patient," Lewis W. Crigler, M.D., New York City.

Discussion by Eugene M. Blake, M.D., New Haven, Conn. (by invitation) and Edgar S. Thomson, M.D., New York City.

"Pseudo Tumors of the Orbit, with Case Reports," William L. Benedict, M.D., Rochester, Minn. (by invitation).

Discussion by Walter B. Weidler, M.D., New York. "Observations Regarding the Treatment of Brain Abscess," William Sharpe, M.D., New York City.

Discussion by J. Morrisset Smith, M.D., New York.

"The Incidence of Paranasal Sinus Infection in Children," Elroy J. Avery, M.D., Rochester.

Discussion by Albert D. Kaiser, M.D., Rochester.

"Some Observations on the Normal Blind Spot," Searle B. Marlow, M.D., Syracuse.

Discussion by Ben Witt Key, M.D., New York City.

"Hyalitis of Indeterminate Etiology," John J. O'Brien, M.D., Schenectady.

Discussion by Norman W. Price, M.D., Niagara Falls.

Wednesday, May 23rd, 9:30 A.M.

"Eye-ground Changes and Their Effects in Certain Diseases of the Nervous System, with Presentation of Patients," Foster Kennedy, M.D., New York City.

"Factors Concerned in the Production of Lesions of the Eye in Experimental Syphilis, with Lantern Demonstration," Wade H. Brown, M.D., New York City.

"Some Observations on Descemet Deposits with Gullstrand Slitlamp and Corneal Microscope; Lantern Demonstration," Arthur J. Bedell, M.D., Albany.

"Radiant Energy and the Eye," Charles Sheard, A.M., Ph.D., Editor, American Journal of Physiology, Southbridge, Mass. (by invitation).

"X-ray Examination in the Diagnosis of Acute Mastoiditis. Lantern Slide Demonstration with Case Reports and Findings at Operation," Robert L. Loughran, M.D., New York City.

Wednesday, May 23rd, 2:30 P.M.

"Report of the Committee on Visual Economics," Albert C. Snell, Chairman, M.D.; Arthur J. Bedell, M.D., Walter B. Weidler, M.D.

"Further Observations on New Method of Preventing Post-operative Intra-ocular Infection. Report of 1,250 Successful Cases." George H. Bell, M.D., New York City.

Discussion by John H. Ohly, M.D., Brooklyn.

"Epithelioma of the Tonsil. Clinical Observations from the Viewpoint of Radiation," Leon H. Smith, M.D., Buffalo.

"The Surgical Results from Operation for Convergence Strabismus," James W. White, M.D., New York.

Discussion by John M. Wheeler, M.D., N. Y. City.

"The Development of the Accommodative Apparatus in Relation to Myopia and Presbyopia," George M. Vandegrift, M.D., New York City.

Discussion by Alexander Duane, M.D., N. Y. City.

"Studies of the Deaf Child, An Experience of Twelve Years, with Demonstration," George B. McAuliffe, M.D., New York City.

"Some Interesting Things Observed in Treating Catarrhal Deafness," Paul V. Winslow, M.D., New York City.

Discussion by Clement F. Theisen, M.D., Albany.

Thursday, May 24th

Clinics.

SECTION ON PEDIATRICS.

Chairman—ELIAS H. BARTLEY, M.D., Brooklyn.
Secretary—ARTHUR W. BENSON, M.D., Troy.

Tuesday, May 22nd, 2:30 P.M.

JOINT SESSION WITH SECTION ON PUBLIC HEALTH.

"The Periodic Examination of Well Children,"
Richard M. Smith, M.D., Boston, Mass. (By invitation.)

Discussion by Charles H. Smith, M.D., New York City; Henry L. K. Shaw, M.D., Albany, and Frank vander Bogert, M.D., Schenectady.

"Recent Results of Active Immunization with Diphtheria Toxin and with Different Mixtures of Toxin-Antitoxin in Schools and Institutions," Abraham Zingher, M.D., New York City.

Discussion by Charles Herrman, M.D., William H. Park, M.D., William A. Hannig, Ph.D. (by invitation). New York City.

"Infant Mortality in Relation to Breast Feeding,"
Florence L. McKay, M.D., Albany (by invitation).

Discussion opened by Frank H. Richardson, M.D., Brooklyn.

"Lay Advertising and Child Welfare," Frank vander Bogert, M.D., Schenectady.

Discussion opened by Edwin F. Hagedorn, M.D., Gloversville.

Wednesday, May 23rd, 9:30 A.M.

"Modification of Breast Milk," William H. Donnelly, M.D., Brooklyn.

Discussion opened by Frank H. Richardson, M.D., Brooklyn, and Walter F. Watton, M.D., Brooklyn.

"Solving the Problem of Preventive Dentistry,"
Alfred C. Fones, D.D.S., Bridgeport, Conn. (By invitation.)

Discussion opened by Clarence J. Grieves, D.D.S., Baltimore, Md. (By invitation.)

"Anorexia in Children, with Report of Case," T. Wood Clarke, M.D., Utica.

Discussion opened by DeWitt H. Sherman, M.D., Buffalo.

"Acidosis, A Faulty Diagnosis," Harry R. Lohnes, M.D. (by invitation), and DeWitt H. Sherman, M.D., Buffalo.

Discussion opened by T. Wood Clarke, M.D., Utica.

The guests and members of this Section are invited by the Pediatric Section of the New York Academy of Medicine and the Brooklyn Pediatric Society to a *Buffet Luncheon* to be served immediately after the adjournment of the morning session.

Wednesday, May 23rd, 2:30 P.M.

"Immunity of Infants Under Five Months of Age Against Measles," Charles Herrman, M.D., New York City.

Discussion by Henry Koplik, M.D., William H. Park, M.D., Sidney V. Haas, M.D., Bret Ratner, M.D. and Philip M. Stimson, M.D., New York City.

"A Preliminary Report of the Occurrence of Gonococcal Vaginitis in the New-born," Edward J. Wynkoop, M.D., Syracuse.

"The Role of Light in Rickets," Alfred F. Hess, M.D., New York City.

Discussion opened by Roland G. Freeman, M.D., New York City.

"Diaphragmatic Hernia, Especially of the Right Side; Its Diagnosis in Life," Philip M. Stimson, M.D., New York City.

**Thursday, May 24th.
Clinics.**

SECTION ON PUBLIC HEALTH, HYGIENE AND SANITATION.

Chairman—PAUL B. BROOKS, M.D., Albany.
Secretary—ARTHUR D. JAQUES, M.D., Lynbrook.

Tuesday, May 22nd, 2:30 P.M.

JOINT SESSION WITH SECTION ON PEDIATRICS.

"The Periodic Examination of Well Children,"
Richard M. Smith, M.D., Boston, Mass. (By invitation.)

Discussion by Charles H. Smith, M.D., New York City; Henry L. K. Shaw, M.D., Albany, and Frank vander Bogert, M.D., Schenectady.

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Florence L. McKay, M.D., Albany (by invitation).

Discussion opened by Frank H. Richardson, M.D., Brooklyn.

"Lay Advertising and Child Welfare," Frank vander Bogert, M.D., Schenectady.

Discussion opened by Edwin F. Hagedorn, M.D., Gloversville.

Wednesday, May 23rd, 9:30 A.M.

SESSION OF SPECIAL INTEREST TO HEALTH OFFICERS AND SCHOOL MEDICAL INSPECTORS.

Principle discussions limited to five minutes.

"The Nature of the School Physical Examination,"
Joseph C. Palmer, M.D., Syracuse.

"The Effect of Public Health Work on Medical Practice," Haven Emerson, M.D., New York City.

"Subnormal Mental Conditions in Childhood,"
William B. Cornell, M.D., Albany.

"Results of Investigation of Deaths from Puerperal Sepsis in the State," Otto R. Eichel, M.D., Albany.

"The Health Officer and Politics," Matthias Nicoll, M.D., Albany.

"Interpretation of the Results of Wasserman Tests,"
Edward H. Marsh, M.D., Brooklyn.

"Results of Investigation of Deaths from Diphtheria in the State," Edward S. Godfrey, Jr., M.D., Albany.

"Experiences in Schick Testing School Children,"
William A. Strohmenger, M.D., Auburn.

"Meat and Milk Inspection in Villages," Stanley W. Sayer, M.D., Gouverneur.

Wednesday, May 23rd, 2.30 P.M.

JOINT SESSION WITH SECTION ON MEDICINE.

"Studies on Absorption of Drugs," David I. Macht, M.D., Baltimore, Md. (By invitation.)

SYMPOSIUM OF SERUM THERAPY.

"Pneumonia," Rufus I. Cole, M.D., New York.

"Poliomyelitis, Epidemic Encephalitis, Bacillary Dysentery, etc.," Simon Flexner, M.D., New York.

"Fundamental Considerations in the Treatment of Meningitides," James B. Ayer, M.D., Boston, Mass. (By invitation.)

**Thursday, May 24th
Clinics.**

County Societies

BRONX COUNTY MEDICAL SOCIETY.

REGULAR MEETING, WEDNESDAY, MARCH 21, 1923.

The meeting was called to order at Daubert's, at 9 P. M., the President, Dr. Leiner, in the Chair.

The minutes of the last regular meeting of the Society were read and approved. The minutes of the last regular meeting of the Comitia Minora were read for the information of the Society.

Election of candidates being in order, it was moved by Dr. Rostenberg and carried that the Secretary be instructed to cast one ballot for the following applicants for membership:

Harry S. Altman, Eugene Bernstein, Jacob M. Bloom, Herman Cowan, Harry Greisman, Meyer M. Harris, Morris Horn, Max Lehman, Adolph Lorenz, David P. Seecof, Charles Stansky, Philip Weintraub, Samuel A. Weber, Hippolyte M. Wertheim; Associate Member, Selian Neuhof.

The Secretary read a letter from the Public Health Committee of the New York Academy of Medicine concerning future hospital development. The President further discussed this letter.

Dr. Podvin, for the Committee on Public Health, reported that the Committee was arranging lectures before different groups throughout the County. The Committee desires the help of the Society and would like to have the names of doctors qualified to speak, and their subjects. Dr. Podvin further reported that the Committee had interviewed an official of the telephone company in regard to improving the medical and hospital telephone service. The Committee also recommends that physicians familiarize themselves and bring into more common use the antitoxin for the immunization against diphtheria of children of pre-school age.

SCIENTIFIC PROGRAM.

"Three Hundred Cases of Stiff Painful Shoulder—with X-ray Findings on One Hundred," Jacob Grossman, M.D.

Discussion by Drs. Kleinberg, Boorstein and Mark Cohn.

"The Spheno-Palatine Ganglion Syndrome—with Report of Cases," M. Rosenbluth, M.D.

Discussion by Drs. Newman, Unger, Kaiden and Leiner.

"An Intimate Talk on the Activities of the American Medical Association," Wendell C. Phillips, M.D.

Dr. Phillips' interesting address was elaborately illustrated, and informative on many points which have hitherto been obscure.

Discussion by Dr. Lukin.

Dr. Van Etten moved that a vote of thanks and appreciation be extended to Dr. Phillips and to the readers of the papers. Motion seconded and carried.

MEDICAL SOCIETY OF THE COUNTY OF QUEENS.

REGULAR MEETING, FOREST HILLS, N. Y.,

TUESDAY, MARCH 27, 1923.

The meeting was called to order at the Forest Hills Inn, President Dr. Charles B. Storey in the Chair.

Dr. D. E. McMahon, for the Legislative Committee, in the absence of Dr. T. C. Chalmers, Chairman, discussed the report of the Advisory Committee appointed by the Governor of the State, and called the attention of the Society to the bill before the legislature, purporting to prevent experiments upon children, the real effect of which would restrict the beneficent progress of surgery, and urged the members individually to communicate with the legislators representing the county and protest against the bill.

Dr. H. P. Mencken discussed the so-called Chiropractor bill introduced by Assemblyman Peter B. Leininger, from Queens County, reading a correspondence between Mr. Leininger and himself concerning the bill. After a vigorous discussion by members present, on motion the matter was referred to the Committee on Legislation and the Committee on Publicity and Public Health Instruction, with instructions to co-operate with the committee appointed by the Professional Guild to oppose the bill.

The following amendment to the By-Laws was adopted, subject to approval by the Council of the Medical Society of the State of New York:

Amendment to By-Laws, Chapter II, Section 3: Associate members shall also be physicians, in good moral and professional standing, residents of the County of Queens, and members of another County Society in the State, duly licensed and recorded in the office of the County Clerk of that County.

The Scientific Session opened with an Intimate Talk by Wendell C. Phillips, M.D., of New York, Trustee of the American Medical Association, on the activities of the Association. He characterized the organization as a great tribute to the basic good sense of the medical profession of America, the House of Delegates, numbering about 150, being practically the governing body of the profession in this country.

Some indication of the magnitude of its work is given by the fact that the income from subscriptions and advertisements of the JOURNAL exceeds one million dollars per year, the weekly issue consuming twenty-nine tons of paper per week, while other publications together consume thirty-eight tons. The JOURNAL is published in Spanish for South America and Spain. With one exception it maintains co-operative advertisements with the State Journals. There are eleven large presses in the printing department which completes 4,800 copies of the JOURNAL per hour.

He spoke of the need of well-trained field secretaries for the various departments of the Association work. Lantern pictures of the various departments of the work were shown, together with the buildings occupied since its organization, including the architect's drawing of the building now under construction which will cover 100 x 180 feet and be six stories high.

All members of county societies are members of the Association, eligible for election to fellowship in the scientific assembly.

H. P. Mencken, M.D., presented a paper on "The Prophylactic Forceps Operation in Obstetrics," based upon 200 cases. The writer and the discussors, W. M. Stone, M.D., and E. A. Fleming, M.D., emphasized the dangers of irresponsible routine application of the procedure.

The meeting, which was well attended, was followed by an informal collation.

Books Received

THE RIDDLE ON THE RHINE, CHEMICAL STRATEGY IN PEACE AND WAR. By VICTOR LEFEBURE, Officer of the Order of the British Empire (Mil.), Chevalier de la Legion d'Honneur. With a preface by Marshal FOCH and an introduction by Field Marshal SIR HENRY WILSON, Bart., Chief of the Imperial General Staff. New York, E. P. Dutton & Company.

REST AND OTHER THINGS. A little book of plain talks on tuberculosis problems. By ALBERT K. KRAUSE, A.M., M.D., Associate Professor of Medicine, Johns Hopkins University. Williams & Wilkins Company, 1923. Baltimore. Price, \$1.50.

NURSING AND NURSING EDUCATION IN THE UNITED STATES. Report of the Committee for the Study of Nursing Education. Dr. C. E. A. WINSLOW, Chairman. The Macmillan Company, New York, 1923.

Book Reviews

THE ART OF ANÆSTHESIA. By PALUEL J. FLAGG, M.D., Lecturer in Anæsthesia, College Physicians and Surgeons, New York; Consulting Anæsthetist, Bellevue, Jamaica and St. Joseph's Hospitals. Third Edition, Revised. 136 illustrations. J. B. Lippincott Co., Phila. and London. 1922. Price, \$4.50.

A complete, concise summary of anæsthesia by a man with a large practical experience and a well-balanced judgment in his opinions as to the merits of the different anæsthetic agents and their comparative values. Each branch of the subject is given its proper weight with no tendency to exaggerate the importance of any special technique. The book is very fully illustrated, and, for the beginner, very little is left to the imagination either in the way of description or illustration, so that it will be found a valuable and reliable text-book for the study of anæsthesia. As a text-book the use of condensation methods, such as smaller margins, smaller type and other similar alterations, would make it handier to carry around and use.

The short discussion of the psychological aspect of the subject, the treatment of the patient himself, is a chapter which warrants even more emphasis than the author has given it.

GEORGE W. TONG.

ARAB MEDICINE AND SURGERY, A STUDY OF THE HEALING ART IN ALGERIA. By M. W. HILTON-SIMPSON, B.Sc. Author of "Among the Hill Folk of Algeria," etc. Oxford University Press, American Branch. 1922. Price, \$3.50.

This very interesting book of ninety-six pages, including index, is written by a layman who apparently has considerable knowledge of medicine and surgery.

The Arab methods and ideas of medicine and surgery are very similar to those of China and other primitive people.

It is well worth reading, for it contains many curious ideas of disease, and in some instances the methods of surgical and medical treatments of the Arab have a certain analogy to those in vogue in modern medicine.

I BELIEVE IN GOD AND IN EVOLUTION. By WILLIAM W. KEEN, M.D., Emeritus Professor of Surgery, Jefferson Medical College, Philadelphia. J. B. Lippincott Co., Phila. and London. 1922. Price, \$1.00.

Dr. Keen is widely known for his long-continued service at Jefferson and for his pronounced affirmation of the Christian philosophy. It is rather unfortunate that he did not give equal prominence in this dissertation to both of the intellectualities to which he calls attention. It would have been a unique appeal to the thoughtful scientist who is quite commonly yet erroneously assumed to be a sceptic in religious philosophies—if, indeed, not an atheist—if the author had stated as succinctly his reasons for accepting the lordship of Jesus Christ as he sets out his reasons for being an evolutionist. There are many who could. It must be remembered, though, that this brochure is not intended for the scientist but for Christians; it is an expansion of a lecture to the students of a divinity school. The interesting feature is the plan; the author writes of what he himself has seen and deduced, though several chapters are *résumés* of generally accepted theories, and recapitulations of commonly known biologic facts. In this lies the charm of the booklet.

The one pervading thought of the argument is the close relationship of all forms of life. Structure, blood, function, cognition, recognition, heredity, development, retrogression, pathology, death—the essential Likeness, the Oneness of Life is his theme. His argument is, "I have seen this," that is all. If a doctor wants to review his knowledge of elementary evolution, here is a suitable guide; does he want to think for just a minute

about supernatural matters, the first chapters of this aged man's apologia surely also are worth while.

A. F. E.

TUBERCULOSIS AND THE COMMUNITY. By JOHN B. HAWES, 2d, M.D. 12mo of 168 pages. Phila. and New York, Lea & Febiger. 1922. Cloth, \$1.75.

In this little book, Tuberculosis as a community problem rather than as an individual one is considered. There has been a very real need for just such a work, for nowhere, so far as we are aware, has the subject been approached from such an angle and in so comprehensive and yet in so concise and lucid a manner. It is just such a contribution as will interest and educate not only the physician, the nurse, and the social worker, but also all lay members of the community concerned with practical efforts directed towards stamping out the plague, Tuberculosis. With a wealth of experience to draw upon, Dr. Hawes is peculiarly well fitted to deal with the subject and does so to the great advantage of us all.

FOSTER MURRAY.

REGIONAL ANÆSTHESIA. By GASTON LABAT, D.D., Lecturer on Regional Anæsthesia at the New York University; Laureate, Faculty of Sciences, University of Montpellier. With a forward by WILLIAM J. MAYO, M.D. Octavo, 496 pages, 315-original illustrations. Phila. and London: W. B. Saunders Co. 1922. Cloth, \$7.00 net.

This book makes excellent reading for the surgeon interested in local anæsthesia. It is a valuable addition to this particular field, and its careful perusal cannot fail to add to the quality of work which is now being done along these lines.

The author lays stress upon the fact that the anæsthetist must possess a thorough knowledge of descriptive and topographic anatomy, especially with regard to nerve distribution. This fact, although self-evident, cannot be over-emphasized.

He shows the value of regional anæsthesia in general surgery as compared to special surgery, and the description of the technique of preparation, methods of approach, areas of block, etc., is very readable.

On the whole it is a very systematic treatise and one of the most comprehensive books on regional anæsthesia that has yet been published.

WALTER A. COAKLEY.

AN INTRODUCTION TO THE PRACTICE OF PREVENTIVE MEDICINE. By J. G. FITZGERALD, M.D., F.R.S.C., Professor of Hygiene and Preventive Medicine and Director Connaught Antitoxin Laboratories, University of Toronto. C. V. Mosby Co., St. Louis, 1922. Price, \$7.50.

The author, Dr. J. G. Fitzgerald, is very modest in entitling his volume "An Introduction to the Practice of Preventive Medicine." It is indeed more than an introduction and is a valuable contribution to the increasing number of treatises on Hygiene and Public Health.

The first half of the volume is by Dr. Fitzgerald and treats on the prevention of infectious diseases. This is the best part of the book. In its treatment of the etiology, modes of transmission and control of each of the infectious diseases, the book is authoritative, gives the latest data on the subject and presents it in a brief and succinct form, which is very admirable and leaves very little to be desired.

In the various statistical data presented, the U. S. Public Health records are, as a rule, predominant, although, naturally, Dr. Fitzgerald presents much data based upon the records of his own country, Canada.

The second and major part of the book is divided between a number of associates of Dr. Fitzgerald, treating the various subjects, such as water, milk, foods, diet, domestic sanitation, school hygiene, industrial

hygiene, etc., etc. Appendices give a number of valuable forms, records, etc., of public health work. The book is profusely illustrated by over one hundred interesting illustrations.

It is always a difficult matter to concentrate all the various subjects of hygiene, sanitation and public health in one volume, and it is still more difficult in a book with a multiple authorship properly to apportion the many subjects embraced in these sciences, giving each its proper place according to its importance. Thus, we find in this book the subject of School Hygiene, including medical and dental and nursing service, treated in about twenty pages, Industrial Hygiene in about thirty pages, and Public Health, Education, etc., in less than ten pages.

To the reviewer it seemed that the volume would have gained in value if Dr. Fitzgerald would have devoted all the seven hundred pages of the book to his own subject which he so admirably treated—Preventive Medicine, The Control of Infectious Diseases.

However, the book will be a valuable addition to the library of all practitioners of public health.

G. M. P.

MEDICAL DIAGNOSIS FOR THE STUDENT AND PRACTITIONER.

By CHARLES LYMAN GREENE, M.D., St. Paul. Attending Physician, St. Luke's and Miller Hospitals. Fifth Edition, Revised and Enlarged with 14 Colored Plates; 623 other illustrations. P. Blakiston's Son & Co., Phila., Pa. 1922. Price, \$12.00.

The fifth edition of Greene's Medical Diagnosis is an excellent brief summary of medical practice. Proper emphasis has been placed on the value of good history and careful physical examination. Emphasis has also been placed on the proper use of instruments of precision, such as the polygraph and electrocardiograph in heart diseases. Bacteriology and pathology, together with the other allied departments of medicine, are duly mentioned in the discussion of diagnosis and prognosis. The method of presentation of the facts and the style of the printing deserve special mention.

M. A. RABINOWITZ.

HISTORY OF THE GREAT WAR BASED ON OFFICIAL DOCUMENTS—MEDICAL SERVICES.

SURGERY OF THE WAR. Volume 2. Edited by Major-General Sir W. G. MACPHERSON, K.C.M.G., C.B., LL.D. and others. Octavo of 604 pages, illustrated. London, His Majesty's Stationery Office, Imperial House, Kingsway, W.C., 2., 1922. Cloth, 26 shillings.

This volume contains more specialized subjects in contrast with Volume 1 and deals for the most part with plastics of the face and jaw, injuries of the head, the eye and the ear, blood-vessels, peripheral nerves, the spine and orthopedics in general, including a regional consideration of fractures and wounds of joints. The subject-matter dealing with the face and jaw has been contributed by H. D. Gillies and B. Mendleson. These injuries were segregated at Queens Hospital, Sidcup, and a very exceptional opportunity presented itself for study and treatment of jaw and face injuries.

This volume is profusely illustrated and affords very interesting reading.

ROYALE HAMILTON FOWLER.

A MANUAL OF GYNECOLOGY. By JOHN OSBORN POLAK, M.Sc., M.D., F.A.C.S. Second Edition, Thoroughly Revised. Octavo of 296 pages, illustrated with 139 engravings and ten colored plates. Philadelphia and New York, Lea & Febiger, 1922. Cloth, \$4.50.

The second edition of this work has been brought up to date by Professor Polak, and forms an excellent book for students, for whom it is primarily intended. It is much too impirical and didactic to be of use to

the specialist, or even to the general practitioner. It would seem as though more space had been given to the operative care of gynecological conditions than is necessary for students, while the pathological anatomy and physiology has been somewhat neglected. The student has been told what occurs, and what to do rather than shown any line of reasoning as to the causation and treatment of gynecological conditions. There is much to be said for each line of teaching, and this excellent book is a good argument for the former.

The make-up of the book in arrangement, illustrations, and typography is all that can be desired in a manual.

E. B.

THE MEDICAL CLINICS OF NORTH AMERICA. Volume 6, Number 1, July, 1922. St. Louis Number. Published Bi-monthly by W. B. Saunders Company, Phila. and London. Paper: Price per year \$12.00.

In this issue there are two outstanding practical clinics which should not escape the student of internal secretions. They deal with endocrine adiposity and pubertas præcox, respectively, and are ably presented.

Eleven other subjects are considered, notably dyspepsia, celiac disease, pernicious anemia and mediastinal new growths.

These clinics continue to be welcome visitors to both regular and casual readers.

F. B. C.

THE MEDICAL CLINICS OF NORTH AMERICA. SEPTEMBER, 1922. Volume 6, No. 2. San Francisco Number. W. B. Saunders Co., Phila. and New York.

This issue contains much of value to the practitioner. There is a diversity of subjects and the reader will find an excellent article upon the subject in which he may be more interested. The question of protein restriction in Bright's disease is well presented by Addis. The circulatory system is covered by Hewlett in an article on Paroxysmal Tachycardia, in which he used quinidin, and discusses the use of this comparatively new drug. Syphilitic Aortitis is thoroughly presented by Kilgore. The Management of Diphtheria, by Fleischner and Shaw of the Children's Hospital, is timely and emphasizes the necessity of keeping in mind this important disease. Leprosy, with recent findings, is discussed by Miller with a more encouraging outlook. Among all of the excellent articles it is difficult to pick out any of special merit.

HENRY M. MOSES.

THE MEDICAL CLINICS OF NORTH AMERICA, November, 1922. Volume 6, No. 3. New York Number. W. B. Saunders Co., Phila. and New York.

The New York number is distinguished by three papers on Diabetes. Allen again emphasizes his stand against the reckless overfeeding with fats and total calories, and advocates judicious undernutrition to control the dietetic state. Mosenthal's attitude is in many respects diametrically opposed to Allen's views, and insists on maintaining an excellent nutrition, even if hyperglycemia and glycosuria occur. Sherrill discusses the progress of potentially diabetic persons in relation to dietary control.

Leo Buerger summarizes the various renal functional tests and discusses their value and relationship to one another.

Other valuable contributions are: Pardee on the Management of Heart Disease during Pregnancy and Labor; Kantor on the Treatment of Diarrheas; Boas on Diseases of the Aorta and Aortic Valves; Cecil on Chronic Infectious Arthritis; Ottenberg on the Course of Pernicious Anemia and its Treatment; Riley on Cortical Anesthesia.

On the whole, this volume summarizes what is known of some everyday conditions in medicine.

M. A. RABINOWITZ.

CLINICAL SYMPTOMATOLOGY OF INTERNAL DISEASES, PART II, GENERALIZED PAIN. By PROF. DR. NORBERT ORTNER, Vienna. Only authorized Translation into English of the 2nd German Edition, by FRANCIS J. REBMAN, with an introduction by THOMAS WEBSTER EDGAR, M.D., New York. New York Medical Art Agency, 1922.

In dealing with the subject of Generalized Pain, the author has thoroughly covered the entire body. He has divided the body into several regions, and has discussed practically every kind and manner of pain possible in these regions. The thoroughness of the author and the detail of his description as here presented are seldom found in any study of pain, and the book should be kept as one of reference, and for close study in order to realize the vast amount of research, thought and experience found between the covers. H. M. M.

NOTES ON MATERIA MEDICA, PHARMACOLOGY AND THERAPEUTICS FOR DENTAL STUDENTS AND PRACTITIONERS. By FRANK COLEMAN, M.C., L.R.C.P., M.R.C.S., L.D.S., Assistant Dental Surgeon St. Bartholomew's Hospital. Fifth Edition. Henry Frowde and Hodder & Stoughton, London, 1922. Price \$3.25.

The author's chief aim has been to give a concise, useful survey of Materia Medica to serve the purpose, and meet the needs of Dental Students and Practitioners. The edition has been entirely rewritten and recast. The latest thought on the most important subject pertaining to Dental Materia Medica, Therapeutics, has been added. The action of drugs and their Dental properties have been more fully described. Chapters on Vaccines and Glandular Extracts, Organo-Therapy, Electro Therapy, Radio-Therapy, have been added because of the need of these agencies in Dental Therapeutics. Much new matter has been brought out, and the remainder revised, bringing it up to date. Any possible repetition of the text that serves no useful purpose, as for instance, Ionic Medication and bleaching of teeth, has been abbreviated.

The most practical uses, properties, action and application of drugs, which are of utility to the Dentist are discussed together with their advantages, disadvantages, and dangers, making it valuable as a textbook.

A critical reading of the volume only serves to increase the belief that it will commend itself alike to the Dentist and Dental Student.

LOUIS F. CRASSON.

YOUR INNER SELF. By LOUIS E. BISCH, A.B., M.D., Ph.D., Doubleday, Page & Co., Garden City, N. Y., 1922.

The newer teachings of individualistic psychology are here epitomized in language that any layman can understand. The manner of presentation is dogmatic and is freely used. In spite of these defects, which are necessarily part of an attempt to popularize a technical subject, the main points are brought home with great clearness and force. This book fulfills its purpose. It gives the layman an authentic introduction to Freud.

FREDERIC DAMRAU.

ORIGIN AND HISTORY OF ALL THE PHARMACOPOEIAL VEGETABLE DRUGS, CHEMICALS AND PREPARATIONS, WITH BIBLIOGRAPHY. Volume 1, Vegetable Drugs, 8th and 9th Decennial Revisions (Botanical Descriptions Omitted). By JOHN URI LLOYD. Prepared under the Auspices of and Published by the American Drug Manufacturers' Assn., Washington, D. C. The Caxton Press, Cincinnati, 1921. Price \$6.00.

It is difficult to restrain one's use of superlatives in commending this book. To read the history of such drugs as cinchona, belladonna, opium and arsenic, as presented in the masterly style of Dr. Lloyd, awakens

a sensation similar to that experienced when reading the Arabian Knights for the first time; midnight oil is willingly consumed, and one is amazed that there still remains an author who has time enough, and the capacity to assemble the data that this book presents. "Main Street" cannot compare with this work in fascinating interest, absorbing detail or illuminating historical data. If there ever was a doubt that psychology has always been an important factor in the practice of medicine, this book should settle the matter.

Really, here is one volume that every practitioner could read with genuine pleasure and profit.

M. F. DeL.

OUR MEDICINE MEN. By PAUL H. DE KRUIF. The Century Co. New York, 1922.

In the foreword the author says that the publication of the essays has "aroused the profound displeasure of many serious and possibly important persons. The pieces have been variously denounced as destructive, ignorant, rotten, wrong-headed, and detrimental to "progress," and that he "did attempt to recount in a fair and restrained manner the reactions which twelve years of contact with medicine men have called forth in him" and "tried to paint the picture of the contrast between the fine old practitioners of the Osler type and the somewhat ridiculous new pseudo-scientific ones; between the white cold light of quantitative science and the inky murk of a practice that is no longer an art and has not yet begun to be a science."

In the process the author takes a whack at pseudo-science, the cults, the false front of professional dignity, "ethics," medical education, groups, uplifters, politics and medicine and sings the praises of the good doctor who practices the art and craft of medicine as a human person upon human beings.

How well the attempt has succeeded, how temperate he has been, and whether the picture has been painted the reviewer leaves to the "medicine men" to judge. About every indictment ever drawn against the medical world is discussed in a manner that makes an entertaining evening's reading for the doctor in tune with the times and blessed with a sense of humor and proportion. Others will get mad and add to the list of epithets already flung. The practitioner had better read it—thoughtfully. His patients will read it—and ask questions.

A. N. T.

LATERAL CURVATURE OF THE SPINE AND ROUND SHOULDERS. By ROBERT W. LOVETT, M.D., Sc.D., Boston, John B. and Buckminster Brown Professor Orthopedic Surgery, Harvard University. Member American Orthopedic Society. Fourth Edition, revised. 172 illustrations. P. Blakiston's Son & Co., Philadelphia. 1922. Price, \$2.50.

The author begins the book with an appropriate chapter on the history of scoliosis, showing that the condition has been known since the beginning of medicine. The name scoliosis was given to it by Hippocrates, including other spinal deformities with it. The lesion is traced to the time when it was established as an entity and to its modern conception.

The chapters on movements of the spine and the mechanism of scoliosis are particularly instructive and very well illustrated. The author has given these considerable thought, as shown by his clinical and anatomical laboratory studies.

The present treatment of scoliosis, especially of the structural type, is very unsatisfactory. Therefore, he has given a description of all the accepted methods employed that are in vogue today. The operative treatment is very properly only briefly discussed, because it is now in the experimental stage, and only time can show its faults or virtues.

The fact that this little book has reached the fourth edition shows its value. It is probably the best single volume published on the subject. J. B. L'EPISCOPO.

NERVES AND PERSONAL POWER; SOME PRINCIPLES OF PSYCHOLOGY AS APPLIED TO CONDUCT AND HEALTH. By D. MACDOUGALL KING, M.D., Author of "The Battle with Tuberculosis and How to Win It." With introduction by Rt. Hon. W. L. Mackenzie King. Fleming H. Revell Co., New York, 1922.

Nerves and Personal Power discusses some principles of psychology as applied to conduct and health. The author, a physician, and a brother of the Right Honorable Mackenzie King, the present Canadian Premier, was himself a sufferer from tuberculosis and progressive muscular atrophy, and finally succumbed to his afflictions. Mackenzie King writes a sympathetic introduction and stresses the fact that every thought the book expresses has had its worth tested in the fiery furnace of affliction. Certainly the circumstances in which the book was written give it a special authority. It may be described as a non-technical treatise on self-control, written in easy, intimate style, which does not aim to supplant the old spiritual anchorages by doctrines based upon an excessive materialism.

A. C. JACOBSON.

SEX SEARCHLIGHTS AND SANE SEX ETHICS. An Anthology of Sex Knowledge, edited by Dr. LEE ALEXANDER STONE, Chief of Bureau of Hospital Control, Social and Industrial Hygiene, Chicago Health Department, etc. With special drawings by Don Chilcote. Price \$7.00. Science Publishing Company, Chicago, Ill. 1922.

The book is a compilation of extracts from various authors which it is difficult to separate from the editor's own sayings.

The pictures are frightful redrawings of most of the illustrations already in use by the United States Public Health Service, state and city health departments, and volunteer health agencies.

The attempt to increase the sale of certain publications by reference to the advertising pages is marked.

The price of the book is its saving grace. Most people won't be able to buy it, and those that do won't be very greatly hurt—if the reader happens to be a student of social hygiene he may find the work of some interest and possible value.

SYPHILIS. By BURTON PETER THOM, M.D. Octavo of 525 pages with 69 engravings. Phila. and New York, Lea & Febiger, 1922. Cloth, \$5.50.

Our knowledge concerning the action of the spirochete pallida upon the tissues of the human body is being continuously added to; the literature describing the effects of old and new remedies grows more and more voluminous; judgment as to the value of various laboratory methods, which aim not only to diagnose and prognose but also to demonstrate the progress of the disease while being treated, becomes increasingly difficult.

These facts are justification for any well written new book on this subject. This book of five hundred pages will repay any one for the time required to carefully read it. Clear, concise, modern; particularly valuable to the busy man who does not read continually on this one subject.

STURDIVANT READ.

A MANUAL OF DISEASES OF THE NOSE AND THROAT. By CORNELIUS G. COAKLEY, A.M., M.D., F.A.C.S. Sixth Edition, Revised and Enlarged. 12mo of 664 pages illustrated with 145 engravings and 7 colored plates. New York and Phila., Lea & Febiger, 1922. Cloth, \$4.25.

"Coakley's Diseases of the Nose and Throat," a book that has been used by the medical student and practitioner for a good many years, needs no introduction.

In the new sixth edition the author has rewritten a number of the chapters on examination of the upper air passages, sinusitis in children, parapharyngeal abscess, and tonsillectomy.

This book is of most value to the beginner in this specialty; he will get great help from the detailed descriptions of the methods of examining patients, the instruments used, positions of the patient, light, etc.

To those who have been longer in the work it can prove a valuable review, and also new things can be found in it.

The chapters on sinusitis in children and tonsillectomy are specially good. The plates and illustrations, some of them new, are of great help in understanding the text. The chapter on therapeutics has been revised and the uses of the newer remedies mentioned. It is a book to be highly recommended to the beginner, for whom it was specially written.

JOHN W. DURKEE.

THE NEWER KNOWLEDGE OF NUTRITION; THE USE OF FOOD FOR THE PRESERVATION OF VITALITY AND HEALTH. By E. V. MCCOLLUM, Ph.D., Sc.D., Professor Chemical Hygiene, School of Hygiene and Public Health, Johns Hopkins University. Illustrated. Second Edition. Entirely rewritten. The Macmillan Company, New York. 1922.

Although this is called a second edition of the little book of this well-known author, it has been rewritten and is practically a new book, giving a history and critical review of the work done during the past fifteen years on the biological value of foods as shown by animal experimental feeding.

It is not simply a record of experiments but rather a discussion of the results of experiments and the application of these results to the general science of nutrition.

Inasmuch as the author has had a very prominent part in the development of this "Newer Knowledge," he is eminently fitted to critically review and interpret the literature of the subject.

He has given what is known of the relation of food to the various deficiency diseases, and the effects of the selection of foods upon vitality and general health.

The author illustrates the fundamental principals of nutrition by the results of animal experiments. He then tries to apply these principles to the requirements of man.

It is a very readable book and intensely interesting. Appended to each of the eighteen chapters is a fairly complete bibliography. A good reference index is also provided.

E. H. B.

BOWEL DISEASES IN THE TROPICS, CHOLERA, DYSENTERIES, LIVER ABSCESS AND SPRUE. By SIR LEONARD ROGERS, C.I.E., M.D., F.R.C.P., F.R.C.S., F.R.S., I.M.S. (Retired), Extra Physician Clinical Research and Lecturer Tropical Medicine, London School Tropical Medicine; Lecturer Tropical Medicine, London School of Medicine for Women. London: Henry Frowde and Hodder & Stoughton. 1921. Price \$9.00.

This is an exhaustive work of nearly 500 pages, covering the subjects of cholera and the dysenteries. The writer, long a pathologist and clinician in India, discards all age-long theories and superstitions and discusses diagnosis and treatment in an up-to-date, scientific manner. In the case of cholera, specific instructions in regard to treatment in each of its three stages are given and the importance of preventing inoculation is stressed. In dysentery, differential diagnosis is elucidated and the ipecac and emetine treatments are described in detail. The treatment of liver abscess by aspiration is discussed and recommended. Bacillary dysentery is discussed as a world problem. Other causes of tropical diarrheas such as sprue, flagellate and ciliate infections and Hill diarrhoea are covered. The book may well be bought to displace all older works of its kind in the medical library.

A. F. R. A.

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MAY, 1923

RECENT PROGRESS IN THE COMMUNICABLE DISEASES OF CHILDHOOD.

By CHARLES HERRMAN, M.D.,
NEW YORK CITY.

3. WHOOPING COUGH

EVERY spasmodic cough is not whooping cough. The term should be restricted to a specific infectious disease, in which the Bordet bacillus is present, which has a definite incubation period and course, and one attack of which protects against future attacks. Atypical cases do occur, but they can only be diagnosed with certainty if other typical cases occur in the same family or ward. The Bordet bacillus is pretty regularly present in true cases, in the catarrhal stage, if proper culture media and technique are employed. After the fourth week the Bordet bacillus is present in less than ten per cent of the cases, so that there is practically no danger of communicating the disease to others after that time, even if a spasmodic cough is still present. Mild atypical cases and carriers may occasionally be responsible for the spread of the disease. In those cases in which it is difficult to demonstrate the presence of the Bordet bacillus, it has been suggested that the patient cough against a Petri dish containing the proper culture medium. In this way a larger percentage of positive results may be obtained. This, and the complement fixation test will aid in detecting the mild atypical cases and the carriers.

In the catarrhal stage the following points are helpful in making the diagnosis. A history of exposure; a cough which increases in severity, and is worse at night, a disproportion between the severity of the cough and the physical signs in the chest; lymphocytosis, a urine of light color but high specific gravity, with an increase in uric acid. The cough may be produced by touching the pharynx or epiglottis, or by pressure in the suprasternal notch. There are certain children who have a sensitive mucous membrane who respond with a spasmodic cough whenever they have infections of the upper respiratory tract. Those of so-called grippal origin are the most frequent. In many children a spasmodic cough persists for a very long time or recurs with any disease affecting the upper respiratory tract. This may be purely psychical or it may be due to enlarged bronchial lymph nodes or to per-

sistent changes in the lungs. Such cases should be controlled by roentgenologic examination. There is no definite proof that whooping cough bears the same direct relation to pulmonary tuberculosis that measles does. Pirquet himself has stated that the cutaneous test does not usually become negative in the course of whooping cough when it was previously positive. This does not exclude the possibility that a latent tuberculous lesion may not be activated by the presence of whooping-cough. The complement fixation test is of value if positive, but if it is negative whooping cough cannot be excluded. The cutaneous tests with cultures of the Bordet bacillus have not proven of diagnostic value. The examination of the chest, especially in infants and young children may show changes even in the early stage, physical signs of emphysema, and not infrequently an area of fine crackling rales at the angle of the scapula especially on the left side. On roentgenologic examination, the diaphragm is low, with a steeple-like effect from the mark slope at either side; in addition the indications of emphysema, with little change in the density on inspiration. Later usually evidence of enlarged bronchial lymph nodes, and in those with a complicating pneumonia the usual appearances.

Whooping cough is a serious disease in children under two years of age, especially for those weak, poorly nourished or rachitic. Newborns are not immune, and in them the mortality is very high. In the majority of all cases death is due to a complicating broncho-pneumonia. The susceptibility and the unfavorable course in infants is usually explained on anatomical grounds, namely that the posterior nares is closer to the upper aperture of the larynx; that the infant thorax is undeveloped, so that there is an incomplete expansion of the chest, that the bronchial tubes are small and mucus is dislodged with difficulty, however, it seems more likely that the explanation is to be sought, as in pulmonary tuberculosis, in the fact that the infant has not been previously infected, has not developed antibodies, that it offers virgin soil so that there is no proper resistance to the progress of the disease.

On account of the danger of secondary infections, especially of the respiratory tract, home treatment is usually preferable. This is especially true for breast-fed infants who should remain at the breast. Wherever possible the pa-

tients should be kept in the open air. During the summer at the Riverside Hospital we have kept our patients either out-of-doors or in wide open wards. Sunlight probably has a specific beneficial effect. Patients seem to do better when kept in bed, and it makes the control and the prevention of cross infection much less difficult. In order to estimate the value of any method of treatment, it is necessary that the stage of the disease should be considered, that only one factor be changed at a time, and as far as the cough is concerned, that a record of the number and severity of the attacks be tabulated. Of the drugs, antipyrin fortified by bromides has given us the best results. However, the cough is not the only important symptom, and some children seem worse when the cough is suppressed. Antipyrin applied locally to the pharynx and the upper aperture of the larynx also has a favorable effect in reducing the paroxysms. Although a number of authors have reported favorable results from the injection of ether (one cc. every other day, three to six injections) we have not had satisfactory results. All our patients at the Riverside Hospital are vaccinated on admission, many are primary vaccinations. Nevertheless we have not observed any marked improvement at the times when the vaccination was successful. Kleinschmidt reports that he has seen no favorable effect from the use of convalescent serum. The injection of any foreign protein (diphtheria antitoxin, milk, etc.) may occasionally have a favorable effect. Whooping cough vaccine freshly prepared and given in the early stage has a favorable effect in about 25 per cent of the cases. When it is followed by a distinct reaction, its action seems to be more certain. Occasionally such immediate improvement is noted that there can be little doubt of its specific effect. Why this does not occur oftener it is difficult to say. Some of the cases in which it fails, may not be due to the Bordet bacillus, or there may be a number of different strains, or the cough may be due in large measure to changes in the tracheal and bronchial mucous membrane, similar to those described by Mallory in his experimental work on animals.

Instead of cultures of the Bordet bacillus, Kraus uses the entire sputum in making his vaccine. The sputum is washed, ether is added, it is shaken and allowed to stand for three or four days, the ether is then evaporated. It is tested in order to be certain that it is sterile, and one to two cc. injected subcutaneously every two or three days.

The use of all these methods has been disappointing. The whooping cough problem is one of the most difficult with which we have to deal. We shall not have a real control of this disease until it is possible to immunize all or nearly all infants against it.

SOME PRINCIPLES IN THE DIAGNOSIS AND TREATMENT OF PULMONARY TUBERCULOSIS.*

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IT is not my purpose to attempt any comprehensive discussion of the various phases of the diagnosis and treatment of pulmonary tuberculosis. It is my intention simply to outline some factors in this problem which appear to me to be important and the discussion of which may be helpful to those who meet this disease in the course of their regular everyday work, rather than to those who make a special study of the subject.

At the outset, three fundamental concepts are important to bear in mind.

First.—Pulmonary tuberculosis after it becomes manifest is essentially a *relapsing disease*. That is, the clinical evidences of its activity rarely, if ever, progress uninterruptedly toward either cure or death. Its course presents a series of exacerbations alternating with periods of quiescence which vary in duration, in character, and in severity. Seldom are they the same in their chief manifestations, and it is only when taken together that they form a clear picture of the disease. The proper understanding of this fact often furnishes the key to correct diagnosis through the correlation of the isolated and otherwise meaningless facts in the patient's history, to the interpretation of the variegated course of the disease, and to the understanding of the indications for and the results of treatment.

Second.—The clinical manifestations of the disease divide themselves into two main categories, the focal, caused by the lesions in the lung of which the physical signs are the most important evidence, and the constitutional or systemic which are indicated by the symptoms presented.

Of the two, the constitutional symptoms are the most important both for the diagnosis of the disease and for the appreciation of its degree of severity or activity. This fact is frequently overlooked. The over-emphasis upon the importance of physical signs often leads to inadequate recognition of the evidence which may be obtained from a careful history and the study of the constitutional symptoms.

Third.—Tuberculous infection does not necessarily mean tuberculous disease. Evidence of pre-existent infection may be present in the form of slight apical physical signs and of a positive tuberculin reaction. They should be interpreted in connection with the other clinical evidence, of which the constitutional symptoms often furnish the most important part.

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DIAGNOSIS.

Methods of Onset and History.

In the diagnosis of pulmonary tuberculosis I have often felt that insufficient emphasis has been placed upon the importance of developing the history of the disease as evidenced by the methods of onset and the various symptoms which may have presented themselves from time to time. Tuberculosis most often begins with cough as the most prominent symptom, or it may be that malaise with loss of flesh and weight is more in evidence. Sometimes it is hemoptysis coming out of a clear sky in the midst of robust health. At other times it is pleurisy with effusion which ushers in the first manifestation of the disease. Quite frequently we have chronic gastrointestinal disturbance, nervous disorders, persistent anæmias, or it may be the diagnosis of a localized tuberculosis somewhere else in the body which leads to careful examination of the lungs and the discovery of disease there.

While the predominant symptoms have been thus briefly reviewed, it must be remembered that the diagnosis of early tuberculosis may, but does not usually, rest upon one finding alone. It is especially in the association of these symptoms that the true situation is to be recognized. Any one of the above symptoms may excite suspicion, two of them together constitute probability, and three or more almost certainty.

This association, however, may not be contemporaneous. The pieces in the evidence may be widely separated in time as well as in localization in the body. This emphasizes the transcendent importance of a complete and accurate history which can be obtained only by knowledge of what is to be sought for and by the exercise of considerable skill in eliciting it from a forgotten past or from an unnoticed or unheeded present. The fundamental concept of periodic exacerbations of activity cropping up in the midst of long periods of quiescence should constantly be borne in mind. This piecing together of the evidence is a fascinating feature of the study of any chronic disease and in none is it more so than in tuberculosis.

Physical Examination.

So much has been written about physical signs of early pulmonary tuberculosis that there are only one or two points which I desire to emphasize. The first, as has already been indicated, is that too much emphasis has been placed upon the physical signs and too little upon the constitutional disturbance of the disease. The second is that too much importance has been placed in the literature upon over-refinement in methods of physical examination and in the interpretation of doubtful or slight physical findings.

For the purpose of the general practitioner the physical examination of the chest in which pulmonary tuberculosis is suspected may be reduced to very simple elements and they are these:

First: Pulmonary tuberculosis begins almost invariably in certain definite areas of the chest, almost always in the upper lobes, occasionally in the apex of the lower lobe behind, less frequently at the root of the lungs or the areas of the lungs adjacent to them, in which case the physical signs are found over the lower portion of the chest, and lastly, the most important physical signs to be detected are fine moist rales. These can only be elicited by careful examination and by the proper use of the cough during examination. When such rales are heard, localized over the areas above described, pulmonary tuberculosis is present in the vast majority of cases.

There are, of course, many other physical signs which can be and should be elicited, but if the general practitioner always heard rales when they are present and knew how to elicit them, I feel that a large majority of the errors which are now made would be avoided.

Laboratory Examinations.

X-ray Examination—I do not intend to go into the details of the X-ray examination of the chest in pulmonary tuberculosis, but simply wish to emphasize in passing that while it is undoubtedly true that in many cases physical examination is sufficient to establish the diagnosis and that in some cases the evidence thus obtained is more convincing than that obtained from the X-ray, yet, on the other hand, the X-ray so often furnishes evidence which is absolutely conclusive and which it is difficult, if not impossible to obtain by ordinary methods of physical examination, that anyone who suspects the presence of pulmonary tuberculosis which he is unable to prove by physical examination, is really reprehensible in his practice if he neglects the X-ray examination of the chest. It is also true that as a general routine the X-ray examination of the lungs is to the specialist quite as valuable as the physical examination itself, and, finally, the interpretation of the X-ray findings is a problem with which clinicians should familiarize themselves as the best results are obtained when clinical and X-ray evidence can be correlated by the same person.

Sputum Examination.—The demonstration of tubercle bacilli in the sputum is, of course, the only absolute proof of the presence of tuberculosis. It, however, needs to be continually emphasized that early diagnosis requires the recognition of the disease before tubercle bacilli appear in the sputum. Consequently, he who waits for positive sputum before making his diagnosis will almost invariably allow his case to become advanced in the meantime, and he who is influenced unduly by negative reports on sputum will often fail to make the diagnosis when it is of real value to the patient. In general, it should be remembered that not more than 30 or 35 per cent of really early cases of tuberculosis exhibit tubercle bacilli in their sputum.

Correlation of all the Data.—The final step in the diagnosis is the correlation of all the data obtained from various sources. This should include all of the various points emphasized in the history and general condition of the patient, as well as the actual findings by the various methods of examination. In many cases this requires time and study. The physician should always be willing to keep the patient under observation and to make several examinations before reaching a final conclusion; unless the evidence is conclusive on the first examination.

Snap diagnoses have no place in medicine, and nowhere do they lead to more unfortunate consequences than in the problems of pulmonary tuberculosis. On the other hand, it should be possible to reach a definite conclusion within a reasonable length of time. The few cases that are still doubtful after observation for a week or two can be kept under further observation under conditions which will safeguard their health, provided tuberculosis is finally discovered.

An undiagnosed early tuberculosis may result in the most serious consequences to the patient. An unjustified diagnosis of tuberculosis results in hardship and injustice. With care and with proper consultation, if necessary, a true diagnosis can almost invariably be determined.

Very recently Dr. Lawrason Brown has made a notable contribution toward the simplification of the early diagnosis of pulmonary tuberculosis. After a very careful summary of findings in thousands of early cases that have come under his observation he concludes that a positive diagnosis of pulmonary tuberculosis is only justified when at least one of five essentials is fulfilled: First, the presence of tubercle bacilli in the sputum; second, definite fine moist rales above the second rib anteriorly or the fourth vertebral spine posteriorly; third, the presence of definite parenchymatous X-ray lesion; fourth, the history of a definite hemoptysis; fifth, the history or presence of pleurisy with effusion.

He states that in his opinion if one follows this rule there would be a margin of error of not more than one or two per cent. Coming from such a source of authority and with such concreteness, these suggestions of Dr. Brown can not fail to be of the greatest value in bringing about a realization on the part of the general practitioner that the diagnosis of pulmonary tuberculosis is not as complicated as perhaps they have been led to believe.

While one hesitates to agree unreservedly with the conclusions drawn by Dr. Brown, I feel that in general the position which he takes is correct and that a general adoption of his categorical essentials in diagnosis can not fail materially to help the cause of the more accurate diagnosis of pulmonary tuberculosis.

DIFFERENTIAL DIAGNOSIS.

Differential diagnosis as distinct from early diagnosis of pulmonary tuberculosis presents many problems of interest as well as of difficulty. I have found it helpful to consider these problems in two main clinical groups. In the first are those in which the history and symptoms may be suspicious of tuberculosis but the local lesion is slight and difficult to find. The problem in these cases is largely one of physical diagnosis. Secondly, we have those cases which present very definite physical signs in the lungs and in which there is no doubt that there is evident disease of some nature. The problem in these cases is one of interpretation.

Cases with Suspicious History and Symptoms.

Under the first group we have such conditions as hyperthyroidism, the neurasthenic group, some of the anæmias, especially chlorosis, some of the febrile conditions, such as malaria, typhoid and paratyphoid fever, influenza and the focal infections.

While in this group of cases which exhibit certain constitutional symptoms the suspicion of possible tuberculosis should always be entertained, nevertheless, it is my experience that very many cases in this group are erroneously diagnosed as tuberculous, when greater care and more patient search would reveal other causes for the presenting symptoms.

Cases Presenting Definite Physical Signs.

In the second group of cases, those which present very definite physical signs, we have a variety of conditions which may simulate tuberculosis and the differential diagnosis from which is by no means easy.

A very important class of cases within this group are those which present no symptoms of pulmonary disease but in which definite physical signs are found in the course of routine examination. The problem then becomes one of deciding whether these physical signs denote active disease or not. They may or may not have any clinical significance. Their correct interpretation is only possible in the light of corroborative evidence from the subjective and constitutional symptoms. Given signs, such as slight impairment of resonance, slight alteration in the breath sounds or fine crackling rales, without stickiness or moisture at a pulmonary apex, the presumption of an inactive fibroid lesion is justified unless constitutional evidence of active disease is present. The determination requires time, care and repeated observation of the usual clinical phenomena, such as temperature, pulse rate, fatigue, digestion, nutrition, etc., but the diagnosis of active clinical tuberculosis demanding treatment is not justified upon such physical signs alone.

In these days of required periodical physical examinations for the apparently well, so frequently and quite properly becoming a part of organized business and industry, as well as requirements for life and health insurance, the recognition and correct interpretation of the physical signs of old tuberculous infection as distinct from active disease assume increasingly great importance.

It is my impression that at the present time a very large number of patients are erroneously and unjustifiably labeled as cases of tuberculosis on just such evidence as above outlined. The sacrifice or even suffering involved is not inconsiderable, and that these mistakes should occur in such considerable numbers is a real reproach to the medical profession. The harm to the patient, to be sure, is less serious than when the presence of existing active tuberculous disease is unrecognized, but it is serious enough and every effort should be made to avoid such errors of judgment.

The other cases in this group now under discussion present, as a rule, very marked and extensive physical signs in the chest. There can be no doubt in anybody's mind that real pulmonary disease exists. The problem lies in deciding just what it is. On account of its frequency, pulmonary tuberculosis is, of course, first to be thought of and if it can be eliminated the problem immediately becomes far more simple. The mistake usually made, however, in this class of cases is that of arriving at a positive diagnosis of a tuberculosis which does not exist, rather than errors in the reverse direction. The principal conditions included within this group are emphysema and chronic bronchitis, bronchiectasis, subacute and chronic pneumonia or peribronchitis, abscess of the lung, pulmonary conditions secondary to chronic cardiac disease, and, more infrequently, diseases such as syphilis of the lung, gangrene of the lung, mycotic infections of the lung, pneumoconiosis, etc. In general, the physical signs in the chest are marked, often extensive, and accompanied by considerable cough and expectoration.

Two methods of examination are of paramount importance in all of these cases and have a value which can not be overestimated.

The first is the frequent and persistent examination of the sputum for tubercle bacilli, and it can be taken as a most valuable general rule that in the presence of extensive pulmonary disease with abundant sputum when the examinations of this sputum are persistently negative for tubercle bacilli, the probability of the existing condition being due to tuberculosis is extremely remote. In other words, in this group of cases the negative sputum examination has the value almost of excluding tuberculosis, which is quite the reverse of the condition of affairs which we

have previously described as existing in connection with the diagnosis of early tuberculosis.

The second method of examination is the X-ray. In this class of cases it gives evidence of the greatest value, often unobtainable by ordinary physical examination and it very frequently in itself enables us to establish a certain diagnosis. This means of examination should never be neglected in this group of cases.

In concluding the brief consideration of differential diagnosis, it should be emphasized that in the presence of extensive physical signs and abundant sputum, pulmonary tuberculosis should rarely if ever be diagnosed when the sputum is negative for tubercle bacilli, and, further, it should constantly be borne in mind that methods of more or less scientific precision, such as tuberculin tests, sputum examinations, the X-ray, and complement fixation reaction, indispensable as they are, frequently fail or even confuse the diagnostician, and that in the last analysis the diagnosis of pulmonary tuberculosis, as, indeed, most other internal diseases, depends mainly upon the development of that clinical sense on the part of the physician, the pursuit of which constitutes much of the fascination of the practice of medicine.

SOME ASPECTS OF THE TREATMENT OF PULMONARY TUBERCULOSIS.

The approach to the subject of treatment of pulmonary tuberculosis must be made with an understanding of the underlying pathology in general, and, in the particular case, with full consideration of the clinical factors involved. We have gone through a period of over-confidence in the curability of tuberculosis and are in the midst of a reaction phase, which, while in no sense reverting to the blank hopelessness that pre-existed for centuries before the development of modern knowledge and methods, is nevertheless serious enough to be quite disconcerting to many physicians and laymen alike. These pendulum swings of sentiment are largely due to misapprehension of the problems involved, and in spite and independent of them, the treatment of pulmonary tuberculosis has made steady and substantial progress in the past thirty years.

Direct attack upon the infection by means of a specific method of treatment still fails us, and our only reliable methods as yet are those which indirectly limit the spread of the disease and favor the healing of the lesions. In general, this consists in improving the general health of the individual, thus developing the natural defensive mechanism of the body and rendering the soil unfavorable to the spread of the infection. This process is very tedious and has many limitations. On the other hand, with skillful management and painstaking care, it can and has achieved much real success. Individualization in treatment

should always be borne in mind. No two cases are exactly alike and general rules must be followed with great discretion and judgment, and it must be constantly borne in mind that at the present time the general principles above outlined constitute the only reliable known method of treating tuberculosis. Apparent short cuts are many and often tempting. They are also most hazardous.

It is my purpose simply to emphasize a few of the important factors involved in these general principles.

Rest and Exercise.

The first of these is the regulation of rest and exercise. Rest is the most essential *single* item in the treatment of active tuberculosis. This must be absolute rest in bed during the febrile periods and in bed or a reclining chair for a goodly portion of each day for several months for almost every case. The predominating importance of this factor is far too little appreciated. Many patients have permanently lost their opportunity to get well by following advice which sacrificed rest, in the effort to obtain other less essential though desirable features. For example, for a patient with fever to take a walk to get the fresh air is as fatally wrong as to send him on a long, fatiguing journey in quest of climate. Far better is it for him to stay in bed under less favorable environment until such time as the febrile evidence of activity has subsided.

So it is later in the cure. Recurrence of active symptoms always demands a return to rest, discouraging as this may often be, and for many months most cases need at least ten to twelve hours in bed each night, with two hours of absolute rest in the cure chair after the mid-day meal, and in addition shorter periods after whatever exercise may be permitted. Peace of mind and freedom from excitement are as desirable as rest of body, so that mental activities must be governed according to their effect, and worries and anxieties should be eliminated as fully as possibilities will permit.

Rest, like every other good thing, can be overdone. Gain in weight is a valuable index of improvement at first, but flabby fat and mental inertia are no assets in the ultimate return to normal life. The gradual progress by easy stages from the absolute rest of active disease to the normal physical and mental activity required from the arrested or apparently cured cases in normal life, is the process indicated. *Graduated exercise* under medical advice and control is the method, and probably no sphere of medical practice requires more skill, judgment and patience.

The hard earned improvement of months of patient waiting may be undone by one day's indiscretion in over-exertion, and the premature or too rapid return to regular forms of exercise

may more slowly lead to the return of the active symptoms of this treacherous disease. Nowhere in medicine is the close and sympathetic cooperation of physician and patient so desirable and no detail in the effect of the activities allowed is too trivial to be disregarded. This scheme of gradually increasing activity may be begun in bed with reading or mild study or with occupations which demand only small movements of the hands, such as knitting, bead-work or other light forms of handicraft. This proceeds through sitting up and slow walking of specified duration to such wider activities as driving, longer walks, some form of shop work and the lighter forms of sport, such as tramps, hunting, skating, snow-shoeing, horseback riding, etc.

At any stage these may be interrupted by untoward symptoms and the gradual process must be repeated. Tedious as this is, the satisfaction of success finally achieved is correspondingly great, until the desired final result is obtained of unlimited regular exercise in a patient in whom the process is arrested, and who is then firm in body and keen in mind, ready to make the great experiment of a return to normal life and to accustomed work.

Occupational therapy and vocational training have come to occupy an important place in this process of rehabilitation. Although useful in many fields of therapeutics, it is nowhere more so than in tuberculosis. Through its systematic development with trained workers, especially recently in the tuberculosis hospitals of the Army and Navy, it has come to bring much needed diversion into the long days of resting, as well as a welcome opportunity for achieving proficiency in healthful trades, which has very far-reaching possibilities.

Climate.

So much discussion has centered about the question of climate in the treatment of tuberculosis that it seems worth while to attempt to summarize the medical opinion as it has now crystallized in such form as to receive fairly general acceptance. This may be done somewhat as follows:

Favorable climate is an important aid in treatment but it is not essential to success. The regimen is the essential factor. If its demands can be satisfied and favorable climatic conditions also provided, an element of very considerable value is added which materially enhances the prospects of recovery and which should not be neglected. If, however, the quest of climate sacrifices any of the essentials of the regimen and of the environment, as is not infrequently the case, then climate must be eliminated and in spite of this undoubted handicap very satisfactory results may be obtained. Climate is futile if the patient is unhappy and homesick, if proper food

and other living conditions are lacking, if the expense involved curtails the necessary time element in the cure, or if proper medical supervision is not available. Given all of these things and a favorable climate in addition, then we have the ideal conditions for cure. The main advantage of a favorable climate is probably that it distinctly facilitates the out-of-door life. Nature calls to the great out-of-doors. But in addition there are certain special elements to be considered which have an important bearing upon the choice of climate for individual cases. Among these, of course, are altitude, dryness, prevailing temperatures and changes of temperature, percentage of sunshine, prevalence of wind and dust, etc.

It is extremely desirable that physicians who are called upon to advise their patients to seek some special climate for treatment of their disease should know a good deal more about not only the climatic conditions of the various localities under consideration, but also the conditions of local environment which may be expected and which have such a very important bearing upon the comfort and happiness of the patient and consequently upon the success of his treatment. Where such special knowledge is lacking, it would be well to seek expert advice more often than is now done before sending a patient upon what often turns out to be a disappointing wild goose chase for health.

Change of Climate.

The effect of any change is a very real consideration for the sick as well as for the well. Such change for a tuberculous individual, even when the climatic advantages *per se* may not be ideal, may have a very marked favorable influence. Upon the other hand, "chasing the cure" from climate to climate when improvement is not satisfactory, often results in an unsettled regimen and a restless, dissatisfied state of mind which is most unfortunate. Such changes may be and often are desirable, but they should always be made after mature deliberation with good medical advice, and only after sufficient trial of existing conditions has been made.

Too many patients are imbued with the idea that when the exactly suitable climate is found, rapid cure is sure to follow. This is far from the case and much disappointment and many failures will be avoided when the appreciation of the predominant place of the regimen is more general, and with it, a proper and rational evaluation of the rôle of climate.

Immobilization Methods of Treatment.

The last element in the treatment of tuberculosis which I wish to offer for consideration is the principle of immobilization as applied to the diseased lung. There are several methods by

which this same principle may be applied to treatment.

Artificial Pneumothorax.—First and most fundamental of these methods is the procedure known as artificial pneumothorax. Without attempting to go into the details of this method of treatment I simply wish to state that it has definitely emerged from the experimental stage and has taken its place as a most valuable procedure for certain classes of cases. In general, it has been used particularly for chronic cases of extensive disease which are largely, if not entirely, unilateral, and in which the usual methods of treatment have failed to control the symptoms and the extension of the disease, or, in another class of cases it has been used for the control of repeated large hemorrhages. There is a growing tendency at the present time to extend its use to less advanced cases in which the symptoms of active disease do not promptly respond to ordinary rest treatment. In other words, to add the principle of local rest to the general bodily rest which has already been attempted without success. Few physicians have used pneumothorax extensively in this class of cases and I confess to a feeling that it has a wider sphere of usefulness in this direction than has been heretofore appreciated.

Even with the most unpromising class of cases in which this method of treatment has been employed, experience has shown that favorable results are quite definite and that the disease may become arrested and life materially prolonged in cases which would otherwise have been hopeless.

That there are certain disadvantages, such as the prolonged period of treatment necessary, the possibilities of pleural effusion which may become purulent, the uncertainty as to whether relapse might not ensue when treatment is discontinued, there can be no doubt whatever, but they are very decidedly overshadowed by the advantages obtained in a large proportion of cases. The dangers of the treatment have been greatly exaggerated and in proper hands, with proper precautions, can be reduced to a minimum.

It must be emphasized that this method of treatment does require a great deal of experience and skill, that it should only be attempted by those who are willing to attain such experience and that to be successful it must be continued for a very long time, usually for at least two or three years.

Operative Treatment of Pleuritic Adhesions.—Failure to obtain satisfactory results by artificial pneumothorax treatment is due to the fact that pleuritic adhesions exist which interfere with the complete compression and immobilization of the affected lung. The presence of such adhesions is readily determined by means of the X-ray and their treatment has received considerable consideration.

Professor Jacobaeus of Stockholm has perhaps contributed the most valuable suggestions in this direction. By means of the thoracoscope, a very ingenious instrument devised on the principle of the cystoscope, he has been able to explore the chest from the inside very satisfactorily and in addition to its diagnostic importance he used it extensively for the direct examination of pleuritic adhesions, which exist in the course of treatment by artificial pneumothorax. By carefully controlled study he has gradually devised a very satisfactory operative method for severing these adhesions by means of thermocautery guided by direct vision through the thoracoscope. During his recent visit to this country we had the opportunity of watching Professor Jacobaeus demonstrate this method with very remarkable success and at Bellevue Hospital Dr. Adrian Lambert and I are at the present time using this instrument for diagnosis and are intending to develop the operative procedure which seems to hold great possibilities of usefulness.

Others have advised the direct cutting of adhesions, but the danger from hemorrhage seems to be considerably greater than when the cautery is used. It is to be hoped that increased experience with this method will very materially extend the good results obtained by artificial pneumothorax.

Thoracoplasty.—Many cases otherwise favorable for the employment of artificial pneumothorax are deprived of this method of treatment because of the impossibility of the introduction of air into the pleural cavity by ordinary methods because of extensive, dense, pleuritic adhesions. It is in this class of cases that radical surgery known as thoracoplasty has been used for some years with varying degree of success.

It would appear advisable that artificial pneumothorax should always be first attempted but that when it is found to be impossible, a more radical operation should be employed more often than is now the case in this country. The reports by Sauerbruch, Braur, Wilms, and others, indicate that the German and Swiss surgeons have been much bolder in attacking these cases by surgery than have surgeons in this country.

Dr. Archibald, of Montreal, however, has had considerable favorable experience and may be considered as the leader in America in this type of chest surgery.

At Bellevue Hospital, Dr. Adrian Lambert and I have been taking up this question with considerable interest during the past year and a few cases have been operated on with most satisfactory results.

The type of case for which treatment is indicated is, of course, strictly limited, but I am convinced that considerable development of thoracic surgery along these lines is bound to occur

and that thoracoplasty will soon come to occupy an accepted place in the treatment of certain forms of advanced pulmonary tuberculosis.

CONCLUSION.

In concluding this somewhat desultory review of the high lights in the diagnosis and treatment of pulmonary tuberculosis, I wish to emphasize the fact that the medical profession has been and must continue to be the backbone of the fight against tuberculosis.

The present indications are that we are winning that fight. The death rate from tuberculosis in the United States has been cut in half in the past twenty years and the morbidity from the disease correspondingly diminished.

This is undoubtedly due in large measure to the efficient organization of all classes of the community in which physicians have played the leading rôle.

The outstanding feature of this campaign has been the promulgation of sound public health education. This has resulted in an aroused and enlightened sentiment among the laity concerning this and similar preventable diseases, which insistently demands from physicians better service than has all too frequently been received. Tragedies resulting from medical mistakes or ignorance are still too numerous and will not be condoned by the modern public, educated to a keener perception in these matters.

In the main, it is the general practitioner who must meet this situation. I believe that a simplification of the essentials involved will aid materially toward that end. We have indicated that these essentials are easily within the grasp of the physician who has made no special study of tuberculosis. Difficult cases there are and always will be, but even in these when a positive diagnosis may not be possible, a strong suspicion of the possible existence of tuberculosis may and should be aroused. It is in such cases that specialists may be of great service.

Finally, may I plead for a greater interest in the chronic cases, of which tuberculosis is such an outstanding example. In their study and management the details are many and the progress slow, but the joy of achievement is none the less keen and the service to humanity is perhaps even greater than in the more spectacular fields of acute disease and of surgery.

As we look back upon the road that we have come during the past twenty years, it is a cold spirit among us that is not thrilled with pride in the accomplishments of our profession. With the possible conquest of tuberculosis in sight we can not but press forward toward its realization. Whether the near future is to bring success or failure depends mainly upon the general practitioner of medicine.

PERFORATION OF THE SIGMOID COLON BY A SCYBALUM.

By K. SELLERS KENNARD, M.D.,

and

H. S. ALTMAN, M.D.,

NEW YORK CITY.

WE are of the opinion that not many cases of perforation of the intestines by inspissated fecal masses have been reported. The formation of stercoral ulcers by scybala have been observed, and the cicatrization and stenosis which follows, has been described by Grawitz and others. That there is a gravity to the condition, will be shown by the findings in the case reported, and that the clinical symptoms are far from definite, can also be appreciated.

The similarity of symptoms presented in this case, to symptoms of surgical conditions of the abdomen, which may be successfully relieved is, it seems to us, striking; and the case is reported with the desire that it may tend to remind the surgeons of the possible existence of this condition, though it offers but little aid to definite diagnosis.

The history of the case is as follows: M. B.—age 70 years, female, housewife, married, white, Ireland. Admitted to hospital August 15, 1922. Died August 15, 1922, four hours after admission.

Personal History.—Present History: Pains in abdomen, vomiting and constipation for the past four days. On Saturday, August 12, patient was suddenly seized with severe cramp-like pains, rather definitely localized in the left upper quadrant of the abdomen, which pains soon after became generalized throughout the entire abdomen, but not of as an intense a character as those localized. Associated with the onset of this pain there has been persistent and almost continual vomiting. Vomitus was greenish in color and as far as the material could be obtained was not fecal in odor. There has been no bowel movement or even passage of gas since the onset, although castor oil has been taken.

Previous History: Has had an umbilical hernia which was repaired twelve years ago. This phase of history otherwise negative.

Family History: Negative.

Physical Examination.—General Appearance: Well developed, obese, aged woman, appears acutely ill, facial expression anxious. Head and face negative, tongue coated, dry, foul discharge from mouth. Neck, negative.

Lungs: Normal vesicular resonance and breath sounds throughout.

Heart: Sounds very distinct, no murmurs heard, apparently no cardiac enlargement.

Abdomen: Large, distended and somewhat rigid on the left side, upper quadrant. There is marked tenderness over the left upper quadrant and generalized slight tenderness throughout entire abdomen. Organs nor masses, palpable.

Vaginal Examination: Negative.

Rectal Examination: Few external hemorrhoids; nothing other than feces can be felt in the rectum.

Extremities and Reflexes: Negative.

Blood Count: W. B. C., 8400; polys., 82 per cent; lymph., 18 per cent.

Temperature on admission, 102.5; pulse, 90; resp., 30. Three hours later temperature was 103; pulse, 88; resp., 30.

Autopsy twenty-four hours after death. Excessively obese female, abdomen distended. Purging of bloody, fecal matter from nose and mouth. Median incision from top of sternum to pubes. Opening of the abdominal cavity shows the small intestine much distended by gas and a general peritonitis was present. A quantity of fluid, about 500 cc. in amount, and fecal in character, occupies the lower part of the abdominal cavity and of the pelvis. On tracing the gut downward a rather sharp line of constrictions occurs at the upper part of the sigmoid flexure of the colon.

In the lower part of the sigmoid and on the posterior aspect of the gut wall, there is a dark greenish area, which surrounds a perforation in the wall of the gut, the size of the perforation being about that of a twenty-five cent piece. From this opening fecal matter had discharged into the pelvic and abdominal cavities.

This section of the gut was removed and opened. It was packed with feces, the fecal contents of the gut being inspissated, much of which occurred as round or oblong scybala, hard at the center and each coated with a thin layer of softer feces.

The intestinal mucosa was white in appearance, sodden in consistency and considerably swollen. But what appeared so unusual was the extent to which some of these scybala had sunken into the mucosa of the sigmoid. For a distance of twelve inches along the gut wall internally these masses had become buried, so that the mucosa completely covered some of them: others but partially and on removing these masses, pockets were left in the mucosa, varying in depth from shallow erosions to deep excavations, some extending down to the peritoneal coat, and one in particular had extended through the peritoneum causing the rupture noted.

No inflammation surrounded any of these depressions on the internal surface of the gut, or was present in the mucous or muscular walls, only the peritoneum was inflamed. There was a general fatty infiltration of all the abdominal organs as well of the gut wall. The condition present is clearly the result of mechanical pressure, stercoral ulceration, the scybala acting as foreign bodies, burying themselves in the gut wall, a condition favored by prolonged constipation, the age of the subject, the general bodily impairment due to the obesity and weakening of the muscle wall of the gut by fatty infiltration.

CHRONIC INTESTINAL INDIGESTION IN CHILDREN.

By F. ELMER JOHNSON, M.D.,
NEW YORK CITY.

CHRONIC intestinal indigestion is peculiarly the problem of the pediatricist. Its management is the most difficult of all nutritional disturbances of childhood and heretofore the most discouraging. I have frequently heard our leading pediatricists admit their inability to cope with this malady.

To emphasize that this is a definite disease entity and to offer some suggestions on its etiology and treatment, this paper is presented for your consideration and discussion. For several years at the Babies' Hospital, we have been giving a post-graduate course in pediatrics. Several of these post-graduates have written me after their return home that the first patients with whom they have had to deal, were these helpless little children suffering from chronic intestinal indigestion. These children had been the rounds to everyone in town and looked to the new comer from the metropolis as a last hope. The practitioner usually makes a diagnosis of tuberculous peritonitis and considers the condition hopeless.

This disease has been given several different names. The English have written extensively on this condition as "coeliac disease." Herter wrote a monograph several years ago describing several severe incidences of this condition as "infantilism." Late malnutrition is another popular name.

These patients come for the most part from well to do families. It is rare to see them in dispensary practice. Their ancestors as a rule have for generations been brain workers. They are much more common among the children who were bottle fed or who have been nursed too long. In a series of thirty-five cases I have had in my own practice or observed at the Babies' Hospital, ten were nursed over eleven months, and fifteen were nursed less than six months.

The picture is perfectly typical and all these children present a symptom complex practically identical. It occurs in children from one to six years of age. Due to the large distended abdomen and small extremities, they are said to be "all belly." The abdomen measures one to three inches in circumference more than the chest. This distension is partly due to the dilated large intestine with its relaxed walls and the thin musculature of the abdominal wall, with its small deposits of subcutaneous fat. The muscles are so weak that they are unable to squeeze the intestines into their proper space. Whether the fault is primarily due to the relaxation of the abdominal wall or to the distension of the intestine, is difficult to decide, but probably the latter is of more importance. The abdomen varies very greatly in size at different times of the day. In

the morning before breakfast, it is usually smallest, and in the afternoon, largest. The facies is haggard with dark rings under the eyes; the complexion is sallow and pale. These children have very little endurance and are always cross and very irritable, sometimes, presenting nervous symptoms comparable to those of a child with meningitis. The reflexes are usually greatly exaggerated and they may have convulsions. Their sleep is fraught with night terrors, grinding of teeth and extreme restlessness. The extremities are cold and moist and in the cold weather always livid.

The retardation of growth is emphasized by Herter's diagnosis of "infantilism." It is not uncommon to see these little patients several inches under height and of course many pounds under weight. One of my patients three and one-half years old, weighed fifteen and one-half pounds and measured only thirty inches in height. In other words she weighed less than one-half of her normal weight and was eight inches under height.

The digestive symptoms are of course the most pronounced. The appetite is capricious to the highest degree, but usually very poor. The bowels alternately are constipated and loose, the latter occurring in crises in which the child fails rapidly in weight. In the constipation periods, the child may not pass any natural movements, but enemata are required, which produce very large and foul smelling stools, which seem out of proportion to the intake of food. The child's general condition is usually better during these periods, and they may put on a little weight. This increase in weight, however, is quickly overcome with the crises or diarrheal periods. The great variations in weight are tremendous and if graphically recorded, remind one of a temperature chart in sepsis. The stools are then watery, copious, frothy and acid. The buttocks and thighs become excoriated. There is usually a great deal of mucous. At all times there is a great deal of undigested material, particularly fat and starch. There is usually no fever at any time. If at all, it occurs in the periods of diarrhea. Several times in my experience, nutritional oedema has occurred. This is a very alarming symptom.

The urine almost always contains indican, and in the crises, acetone. During the diarrheal period, the child usually eats nothing and the acetone is due to the fasting.

The liver is usually small and spleen not enlarged. Peristalsis to a marked degree may be seen on abdominal wall.

Pathology.—There has been very little written concerning the pathology of this condition. Thomson, of Edinburgh, found a thickening of the alimentary mucous membrane and a small cell infiltration and introlobular pancreatitis, probably secondary.

The following note on pathology was written by Dr. Martha Wollstein, of New York: "The gross lesions in the organs of young children who, clinically, present the symptoms of chronic intestinal indigestion are neither marked nor characteristic. The stomach is invariably normal, as are the duodenum, and upper ileum. In the lower ileum usually and throughout the colon practically always, the mucous membrane is swollen and pale. It is covered with a moderately increased amount of mucous and the solitary lymph follicles are enlarged, pigmented, but never ulcerated. The lesion is that of a low grade catarrhal inflammation. If the colon is distended with gas the walls seem thin because they are stretched; when the gut is empty, its walls are of normal thickness."

"Microscopically the epithelium covering the mucosa are often lost over smaller or larger areas, but the cells of the glands of Lieberkühn are in good condition. The deeper portion of the mucosa shows a moderate amount of cellular infiltration, and the lymph follicles are closely packed with lymphoid cells. The submucosa, muscle coats and serosa are not infiltrated, and consequently are of normal thickness.

"The liver shows a variable amount of fatty change, which, however, does not reach an extreme degree."

Differential Diagnosis.—The differential diagnosis is comparatively easy. Chronic intestinal indigestion is most often mistaken for tuberculous peritonitis. It is my custom when in doubt to give an anæsthetic, and the palpation of nodules in the abdomen usually makes the diagnosis clear. The ascitic types of tuberculous peritonitis are easily differentiated by the presence of fluid. A Von Pirquet skin test helps in a negative sense. The only other condition which simulates chronic intestinal indigestion is Hirschsprung's disease. This is congenital defect of the colon, and the history makes the diagnosis certain.

I shall consider etiology and treatment together. Dr. Holt in his book makes several statements, as follows:

1. "These children manifest an inability to digest and thrive upon cow's milk, however modified."

2. "The most frequent cause of this disease is a previous severe or prolonged attack of diarrhea or dysentery from which a child seems never to recover."

3. "Skimmed milk is well borne by only a limited number."

4. "A striking feature of these cases is their marked intolerance for sweet cow's milk."

These remarks occasioned the following thoughts: It occurred to me, why are these clinical observations true? Could not the symptoms be explained by assuming an allergy to cow's milk in any form? If there is an allergy,

how did the sensitization occur? The allergy to cow's milk is purely hypothetical, because I have been unable to prove by skin test any allergy to cow's milk. However, the clinical observations would indicate an allergy to a marked degree. It is generally known that all cases of protein sensitization do not give a skin test.

Dr. Oscar Schloss has done a great deal of work on protein sensitization and some of his observations seem to fit into this theory of etiology very well. He and others have proven without doubt, that sensitization may occur by the absorption of unaltered protein through the intestinal tract. Many cases of marked allergy to egg, milk and other foods, give a history of a former attack of acute intestinal disturbance when the offending protein was fed in a natural state. He reports a case of "egg-oatmeal" allergy, where the child had been given egg albumin in the second week of life, during an attack of diarrhea. At this time, he showed no symptoms. At a later period, when egg was again given, the child showed alarming symptoms. The same child was fed oatmeal jelly during an attack of diarrhea without symptoms and later exhibited marked allergy to oat protein. Dr. Schloss thinks that during the attacks of diarrhea in which this child was fed the egg and oatmeal, the proteins were absorbed without first undergoing splitting into amido acids and other end products of protein digestion. The absorption was rendered possible by the altered physiology and diseased intestinal wall. It is easy to understand, at least in the ulcerative cases, how this is possible with blood vessels denuded of mucous membrane. This explains why these children with chronic intestinal indigestion give a history of former intestinal disturbance.

There are certain clinical observations that seem to prove beyond argument, that cow's milk is the offending food. If the protein of cow's milk is changed by boiling or condensing, it is borne much better than if administered unaltered. In many cases in which I have taken away milk, the children have shown marked improvement in every way.

To illustrate—A child 3½ years old weighing 15½ pounds had been under the care of at least ten prominent physicians in New York. She had also been in the hospital for several weeks and put on a strict protein diet in the form of protein milk. Starch, therefore, was eliminated and no sugar was added. One could think of no diet so low in carbohydrates and yet she weighed less at discharge than on admission. She came to me in the dispensary, in December of last year. Without milk in any form except one ounce of butter daily, she put on 6 pounds in 6 weeks. She manifested the worst kind of nervous symptoms. At one time a physician had ordered that one quart

of sweet milk be forced on the child every day. During this time, a period of two weeks, she cried constantly day and night from abdominal pain. The mother asserts that the child slept only one hour in twenty-four. She lost weight and developed a diarrhea. Without the milk, the first time in her life the experiment had ever been tried, she slept every night and became amiable and happy. Before the milk was withdrawn, her appetite was capricious and she had a marked distaste for milk, but afterwards became very hungry.

It is common knowledge that these children exhibit a natural distaste for milk. This information in many cases is volunteered by the mother without questioning. We have all noticed that children intuitively refuse foods for which they show an allergy.

All the authorities say that it is carbohydrates that are at fault. No less an authority than Dr. Howland of Johns Hopkins, recently read a paper before the American Pediatric Society, in which he attributed the entire fault to the carbohydrates and recommended eliminating the starch and sugar at first and increasing the amounts gradually. Although I do not claim to have proven beyond exception that these children are really suffering from milk allergy, I do know that in the few cases I have had the opportunity to try out this idea, that if the milk is eliminated the carbohydrates are well borne. The symptoms of this disease are those of a chronic intoxication and this intoxication impairs the digestion for any kind of food.

Treatment.—The most important part of the treatment is to win the confidence of the parents to your idea. You must believe in the idea or they will not respond. Good salesmanship is what is wanted and you must sell your idea. Usually it is impossible to treat these children without a nurse and apart from the family. The most difficult thing I have to contend with in practice, is to convince a mother, that a child can live without milk or at least on less than a quart of milk a day. I firmly believe that more harm is done today in child nutrition by the slogan of "a quart of milk a day" than any other one thing. It pays to advertise and certainly all the literature about the virtues of milk have been well "put over."

After first convincing the parents it can be done, a carefully written diet schedule should be given. Nothing can be left to the judgment of the mother or nurse.

I prescribe the following schedule:

7 A.M.—Cornmeal, Wheatena, hominy, rice (all cooked 4 hours in water the day before). Farina or cream of wheat (cooked 2 hours in water) served with butter and salt. Bacon. Breadstuffs. Egg (if there is no allergy. It is

common for children to have an allergy to egg, when milk disagrees).

12 o'clock.—Scraped beef once a week, chop twice a week. Any kind of lamb well cooked and ground. Remainder of time, poultry or baked or boiled halibut or codfish. Chicken or lamb broth. Baked or mashed potato, stewed carrots, stewed celery, stewed onions, string beans, peas, squash, white turnip, spinach, asparagus, mashed cauliflower.

Desserts.—Stewed apples, stewed prunes, stewed pears, stewed berries (except strawberries), baked apples, gelatine pudding. Bread stuffs.

3 P.M.—Scraped apple, scraped pear or crushed grapes.

6 P.M.—Farina or cream of wheat (cooked 2 hours in water), or one of above cereals served in same way. Chicken or lamb broth. (Older children). One of the above vegetables may be served at this meal. Stewed fruits. Occasionally one or two teaspoonsful of Phillip's Cocoa to a cup of water. Bread stuffs.

Bread stuffs include: Wheatsworth crackers, plain white and whole wheat bread and butter.

At end of schedule are written special directions. Stewed fruits to be cooked with very little sugar. No candy. No ice cream. Sugar and milk to be avoided. Butter may be used with moderation. Potato to be used sparingly.

The only foods containing milk are bread and butter. Butter is prescribed in amounts of 1 ounce each day. Bread contains only a negligible quantity of milk.

The next important direction is concerning rest. A strict schedule of living is outlined. They should retire at 6.30. They should have breakfast in bed and arise at 10 A. M. They are taken out in a cart, until 12 noon and then put to bed again until 2 P. M. Out again in the cart, until 5.30. The child is allowed to use as little energy as possible. The mother should be cautioned against nagging the child about the prescribed habits and encouraged to use her ingenuity to entertain him with games and reading. Excitement should be avoided.

All these children are anaemic and should be transfused if haemoglobin is less than 30 per cent and given iron in any case.

Cod-liver-oil is given plain in teaspoonful doses three times a day. It is an excellent food because of its high vitamine content and high caloric value. Recent work at Johns Hopkins would indicate that Cod-liver-oil aids the deposition in the tissues of calcium and phosphorus. It is best given pure and not mixed with malt products. Cod-liver-oil should not be given too steadily, because it will sometimes nauseate. Olive oil is also useful as a food and is usually well borne if no milk is given. This, however, I delay

giving until the child is well established on the diet.

If the stools are very foul smelling and there is much mucous, I am convinced that *Bulgara Bacilli* are useful.

Herter, in his studies on this disease, found a distinct negative balance in the calcium and phosphorus metabolism. Without milk the calcium cannot be made up unless added to the diet. Chalk mixture does this very well. This is a suggestion made to me by Miss Fales of the Babies' Hospital metabolism laboratory. The insufficient quantity of calcium in the diet I have outlined, is to my mind the only substantial objection to the withdrawal of milk.

The water soluble vitamin in the form of tablets or brewers yeast have never proved useful in my hands.

The maintainance of body heat, is of great importance in the management of these children. I recommend only one or two baths a week, but a daily massage with olive oil. When taken out doors, if the air is cool, a hot water bottle should be used at the feet and the hands should be covered with mittens. An occasional test of the temperature should be made. These children, if kept warm, do best in the open air and removal to a warm climate in winter is advisable.

There is a tremendous amount of harm done in the treatment of this condition by the misuse of cathartics. One must always be wary lest he precipitate an attack of diarrhea by a too large dose of medicine. From the very pathology of this condition, it is unwise to give large doses at any time. Because of the great dilatation of colon and sigmoid, there is a tendency for a kink to occur. In the X-ray, the sigmoid is found usually to extend well up under the liver. If this large long sigmoid is filled with feces and gas, it is easy enough to see how it will twist on itself and form a kink at the junction with the rectum. If a large dose of cathartic is used this kink is only made tighter by the increased peristalsis.

To avoid this constriction in the lower bowel, there are three useful procedures. Mineral oil is given in divided doses 3 or 4 times a day on an empty stomach to soften the stools without increasing peristalsis and in a majority of the cases, will take care of the sluggishness of the bowels. If this is not sufficient, I prescribe cascara in small doses given frequently, 10 or 15 drops, every 2 or 3 hours. If these fail, it is best to use the enema carefully given with a large catheter. The average nurse will fail to use the enema efficiently unless shown first by the physician, how to insert it with finger as director and to massage the abdomen while the child is making effort to expel the water. Essence of peppermint, half teaspoonful to a quart of hot suds is used as enema.

An abdominal binder made to fit snugly is a

great help in increasing the strength of the abdominal muscles.

This is a preliminary report. Three children have been put on this diet and followed for a period long enough to warrant conclusions. They have done so surprisingly well, that I thought the subject of sufficient importance to bring to your attention. This is but a beginning of the study of the treatment of chronic intestinal indigestion. I feel that the idea opens a new and interesting field of observation.

WELFARE WORK AMONG SCHOOL CHILDREN.*

By JOSEPH C. PALMER, M.D.,
SYRACUSE, N. Y.

I AM very glad of the opportunity of speaking to you on the subject of Welfare Work Among School Children. It is a subject in which I have been much interested for some time, and a very important one—one perhaps in which accomplishments and results are not always commensurate with the enthusiasm and efforts of the workers, dependent as it is on budgets and appropriations and on educating our representatives to the child's needs, and of showing them that liberality in the spending of public funds now in conserving the health of children is the part of wisdom and economy, although it may not be apparent until we take a census of our sanatoria, alms houses, jails, asylums, and hospitals ten or fifteen years hence, and until the next generation has demonstrated, with an increased measure of health and vigor, a stronger resistance to disease, and a greater power of accomplishment, that our money has been well spent.

We are very glad of a strong ally in this work in our Governor Miller, who is not friendly to welfare legislation generally, and who declared recently that he deplored paternalistic tendencies which substitute dependence upon the state for self-dependence and self-reliance of the citizen; and that in our relief work we must be very guarded not to impair the ability of the individual for self-help; however he states that in the case of children, he would make an exception. "It is one of the highest functions of the state," he declares, "to safeguard childhood and protect public health, and the proper discharge of these functions is not paternalistic."

Before speaking on the occasion of the opening of the East Harlem Health Center on 116th Street in New York City recently, Governor Miller was greeted by a group of children, some of whom were physically imperfect and bore evidence of undernourishment. "There is one field of effort," he declared, "where I would not draw any line whatever, and that is, in the case of chil-

* Read at the Annual Meeting of the Medical Society of the State of New York, at Albany, April 22, 1922.

dren. I do not think there is any limit to the obligation the State owes to see that so far as possible our children are prevented from being future mental, moral, or physical cripples. There is no danger of being paternal when it comes to the provision for the future citizens of the State. There is no danger of interfering with self-help when you are dealing with infants."

In the time at my disposal, I shall speak only of the essentially health phase of the subject. Consideration of matters of supervised play, physical education, school athletics, and other school activities, all of which make for the healthy development of the child, I will leave for others.

I can but mention the beginnings of Medical Inspection (Health Supervision of School Children is a better term) which seems to have been in Brussels, Belgium, in 1874, where some attention was given to examining the school children, and where the physicians visited the schools three times a month. The work was taken up in Switzerland soon after. The movement spread rapidly and before the war, Health Supervision in some form had been taken up by the larger cities of all the countries of Europe. Boston was the first city in the United States to show realization of the importance of the proper development of the child's body. This was in 1894. Other large cities throughout the country followed soon after. At the present time there is not a city of any size in the country that is not doing something in connection with its school curriculum to improve the health of its pupils.

I wish especially to commend the work being carried on in Detroit, where, last Fall, 140,000 children were re-weighed, where 125 Nutrition Classes are in operation, and where \$20,000 was recently appropriated by the city council to improve the health of its school children.

Work out of the ordinary is also being done in Newton, Mass., where a monthly weight record goes to the parents with that of the report on academic work. Also, careful and painstaking welfare work is being done in Springfield, Mass.; Fall River, Mass.; Trenton, N. J.; Montclair, N. J.; Kansas City, Mo.; Bridgeport, Conn.; Louisville, Ky.; Denver, Colo., and Salt Lake City, Utah, and various other cities.

In our own state, Rochester has a budget of \$145,000.00 and twenty-five Nutrition Classes. The work is being carried on in part by outside organizations, but is meeting with the hearty approval of the educational authorities. In Yonkers much is being accomplished and the work is in especially capable hands. In Auburn and Binghamton, a comprehensive Health Program is being carried out. In the latter city, incorporated in the quarterly report of the child's progress to the parent together with classroom work and a report on citizenship, is included one on Health

Education. Here is recorded the carrying out of healthful habits at home with points on personal neatness and cleanliness, as well as a record of the child's height, and actual, and required weight. The services of a trained supervisor of nutrition have been obtained, and of Binghamton's approximately 300 teachers, over 100 have volunteered to attend an evening course in nutrition. Time has been set apart during school hours for the teachers to instruct and help the child who is backward in nutrition.

A municipality must be shown the value of welfare work, usually, I regret to say, in dollars and cents, before it can be persuaded seriously to consider one. We are indebted usually to local chapters of Red Cross or to anti-tuberculosis organizations, and other philanthropic groups for the initiative. However, there have been few instances where once having taken up work of this character it has been abandoned.

There are about twenty million school children in the United States who spend something like one hundred million hours a day in school every school day. Approximately twelve million of these children have physical defects of sufficient importance to interfere with their progress in school work. There is a very large number of mal-nourished children among them, due to overcrowding, bad home habits, improper and insufficient food, faulty school hygiene, results of acute disease, defective teeth, diseased tonsils and adenoids, skin diseases, orthopedic deformities, and other defects.

It has been estimated that from 2 to 10 per cent of all school children have physical defects of such importance that it is useless to spend public funds to educate them unless steps are taken to remedy the defects. In the vast majority of cases, removal of the defects puts the child at once on the road of advancement in his academic work.

Frequently, seemingly dull children are so, because of enlarged or diseased tonsils and adenoids. These children are absorbing constantly small doses of poisons so that their stomachs are denied uncontaminated food, and the lungs their full quota of fresh air. We know that decayed and carious teeth, with the bolting of food and indigestion which go with this condition, may be responsible for under-nourishment, rheumatism, heart disease, chorea, anæmia, nervousness, drowsiness, pallor, and other troubles, which vanish when the defects are corrected. Many children have been thought dull and fail in their lessons because of defective eyesight and because they could not see the blackboard, or because of defective hearing, in cases in which they could not hear what the teacher was saying. All of these children are in a lowered state of general health and resistance and are likely subjects for scarlet fever,

diphtheria, whooping cough, measles, tuberculosis—what not.

For real accomplishment in this work, we must have careful periodic physical examinations, with records, by school physicians who are interested in their work, and who are willing to co-operate with the parents and with the school authorities to improve the condition of health of the children. We must have Follow-Up Work by the nurses (Health Teachers many of them have become) to see that the correction of physical defects is brought about, either by the family physician and home co-operation or through charitable agencies. We must have careful inspections for contagious diseases, with exclusion of those affected. We must have special classes for those who have tuberculosis, or are pointed for it, as well as Nutrition Classes for those worst cases of mal-nutrition. We must have classes for the deaf, Sight Saving Classes for those who are partially blind, classes for those with speech defects, and perhaps for cripples.

Children should have periodic weighings, and records should go to the homes and to the parents. I am not yet convinced that all children who are underweight according to certain scales based on averages of a certain group of supposedly normal children, are undernourished,—the picture of health as revealed by the physical examination in which the doctor has taken into consideration the individual characteristics of the child, his nationality, and his surroundings, is the essential, I believe.

It is vastly more important for the parent to know the result of the physical examination of the child and his state of health, and whether he gains in weight from month to month, than to know about his underweight, for his underweight may be due to a personal or family characteristic which is normal for that boy or girl at that time, and will right itself.

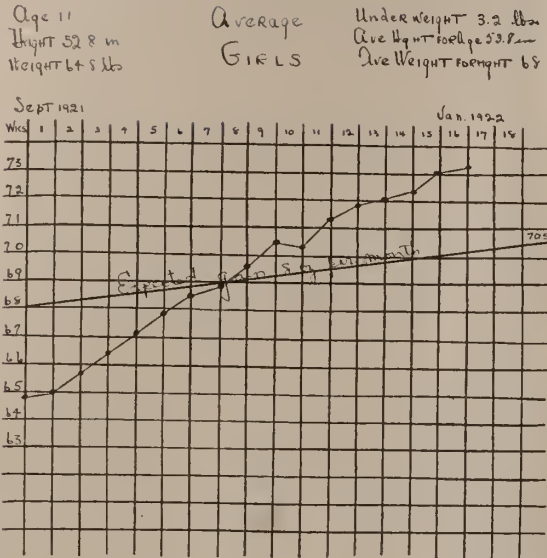
We must have instruction in health habits by the teachers, doctors, and nurses. It is my opinion that this instruction should be for all the children, and should come largely from the teachers, in spite of their already heavy burdens. We must instruct the parents through the children, and the children through the parents. It was so in my day at school, and I believe it is so now, that what came from my teacher was the absolute truth, fundamental and indisputable, and what my teacher said and stood for, I believed and accepted. It seems to me that in putting through this important phase of school work, we have, in the teachers, agents whose services are invaluable, and whose doctrine is accepted without question. With the aid and instruction, and under the direction of a trained Supervisor in Nutrition who should understand food values, the proper preparation of foods, the principles of nutrition and of health and ill-health generally, they are in a position, aided by doctors

and nurses, to impart to the children, lessons in health and health habits which may bring startling improvements in the general health of the children and may be of value to them for the rest of their lives.

A realization on the part of the parents that they have a definite responsibility and an important part to play in the education of their children is absolutely necessary. It is going to be a gradual one, but it is surely coming. They must revise their attitude of placing the burden solely on the school authorities, and of casting every care aside when their child races off to school, perhaps having bolted down a cup of coffee and a fried cake. Also it is not coming at once—this new responsibility or share in a responsibility, on the part of the school authorities. However, it is surely coming, for health is everything; it is of supreme importance, it is the cornerstone of the building. We as teachers must put Health Education on a par with Regents, or before it. When the mother comes to realize that it is of more importance for her to know whether her child was up until 9:30 last night and at the movies and slept with his windows closed, whether he used his tooth brush and whether he had coffee for breakfast, with cake and tea for dinner, *today*, than it is to be anxious over the history and spelling marks on the report card *tomorrow*, she will be at the threshold of her responsibility. Only when she is as disturbed over a loss in weight shown on a monthly report as she is over a failure in geography or arithmetic, will she assume an attitude which is going to aid in the real development and true education of her child. Health habits at home make for habits of mental alertness, clear thinking, and accuracy in school. It is of more importance for the teacher to know whether the child slept in a well-ventilated room, went to bed at a seasonable hour, and had some wholesome, nourishing food, than it is to know whether he completed his home work in arithmetic.

There are four or five causes for undernourishment, or failure to gain in weight—we might say, for the type of child with lusterless eyes, flabby muscles, and pallor, who is tired much of the time. They are physical defects (principally enlarged or diseased tonsils and adenoids, and decayed teeth). Improperly prepared or insufficient food or both. Lack of home control. Irregular hours of eating, coffee and tea drinking, late hours; disregard of the simple laws and rules of health, of dress, of sleeping, bathing; care of the teeth. To these I would add nagging on the part of one or both parents, or some other member of the family. These things must all be corrected if our child is to be brought to health and efficiency. We must have a definite plan for education in health principles and health habits for all of the pupils. We must have special instruction and attention for individual

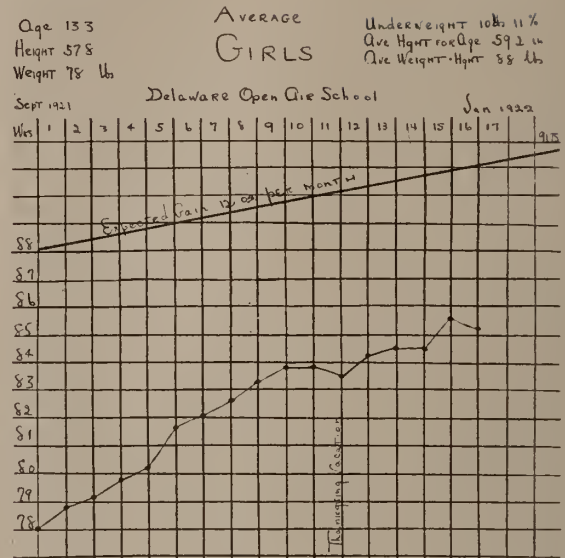
WEIGHT CHARTS



Normal Gain 2 lb
Actual Gain 8 lb

430% Gain

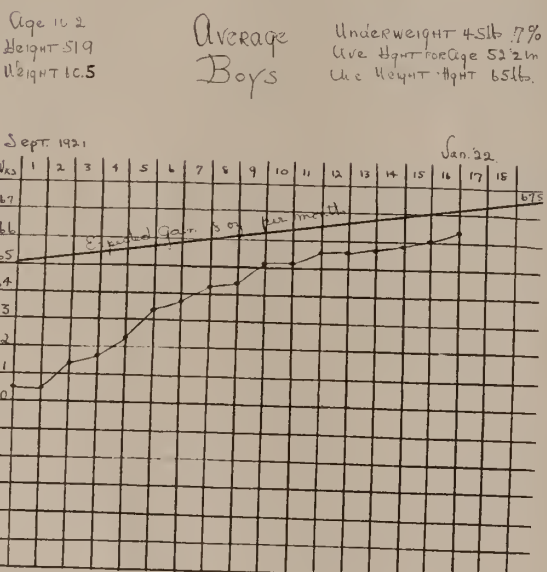
Class No 1



Normal Gain 3 lb
Actual Gain 7.25 lb

242% Gain

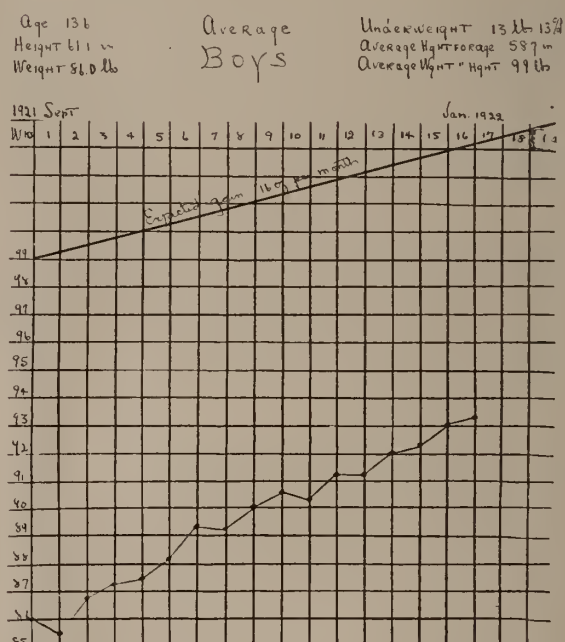
Class No 2



Normal Gain 2 lb
Actual Gain 4.9 lb

245% Gain

Class No 3



Normal Gain 4 lb
Actual Gain 7.25 lb

181% Gain

Class No 4

groups, for those who in spite of the elimination and removal of physical defects and handicaps, remain more or less stationary in weight and show anæmia and general weakness and fatigue. It seems to me our Nutrition Classes and Open Air Classes meet these needs. We must have accessory feedings, for many of these are undernourished because they are underfed. A glass of milk and a roll or cracker at mid-morning, and a

thirty-minute rest period later in the day wherever it is possible, is an excellent program.

In Syracuse we had voluntary Medical Inspection in 1905. Physicians of our Academy of Medicine made physical examinations and inspections for a period of one year. Our regular Medical Inspection, as it was then called, began April 1, 1906, with one paid nurse and one paid doctor. A municipality gets, or ought to get, as

good service as it pays for, and we did at that time, but it was not very good. On August 1, 1913, as you know, the Medical Inspection Law which made the employment of doctors and nurses compulsory, went into effect, and since that time much good has come to the children throughout the state.

I will go over briefly these charts which I have prepared, which will show what has been done and what we are trying to do in Syracuse.

CHART No. I.

A scale in every school.
19.6% of children 10% or more underweight in 1920.
16% of children 10% or more underweight in 1922.
Four Nutrition Classes.
Three Open Air Classes.
Two Open Window Classes.

CHART No. II.

Corrections of Physical Defects.—1917, 42%; 1918, 23%; 1919, 38%; 1920, 66%; 1921, 60%.
atypical classes, three nutrition classes, one open-window

SYRACUSE PUBLIC SCHOOLS, 1921-1922.

Number of school children, 25,688.
Staff.—Health director, assistant and secretary, twelve health teachers, nine school physicians, two school dentists, one refractionist, one psychiatrist, three nutrition workers (outside organization).
Thirty-eight schools.
Three open-air classes, two classes for deaf, three atypical classes, three nutrition classes, one open-window class, one sight-saving class, one class for stammerers and defect of speech.

CHART No. III.

NINE SCHOOL PHYSICIANS.

Average number of pupils each, 2,856.
SCHOOL YEAR, 1921.
Routine physical examinations, 19,066.
Intensive physical examinations, 1,536.
Forty-seven per cent of pupils showed physical defects.
Thirteen per cent of pupils showed enlarged or diseased tonsils or adenoids or both.
Eight per cent of pupils showed defective vision.
Seven per cent of pupils showed defective hearing.
Classroom health talks given to all children.
Intensive physical examinations required for all pupils engaging in school athletics.
Weekly lectures to nutrition classes.
Children with physical defects, 8,969.
Defects recommended for treatment, 11,952.

CHART No. IV.

TWELVE HEALTH TEACHERS.

Average number of pupils each, 2,141.
Follow-up work, September, 1920, to July, 1921.
Visits to homes, 7,474.
Children sent to dentists, 2,640.
Children securing eye glasses, 610.
Conferences with parents, 6,871.
Treatments given (for minor complaints), 7,212.
Weighings, 16,148.
Children operated for adenoids and tonsils, 782.
Children sent to Tuberculosis Sanatorium, 14.
Children buying milk in school daily, 3,596.
Children (previously investigated) given free milk daily (March), 943.
Total number quarts of milk consumed, (estimated), 95,000.
Physical defects corrected, 7,050.
Physical defects improved, 4,011.

CHART No. V.

SPECIAL CLASSES.

Four atypical classes, fifty pupils.

Class	Average Age	Mental Age
Number 1.....	12	9
Number 2.....	10	6
Number 3.....	11	8

Session 4¼ hours. Academic work, 1½ hours. Practical work, 2 hours. Recreation 3¼ hours.

Weaving	Manual Training	Knitting and Sewing
Rugs	Bird Houses	Scarfs
Baskets	Coat Hangers	Wash Cloths
Table Mats	Chairs-Rockers	Sweaters
Reed Lamps	Spoon Holders	Lunch Cloths
Chair Seats	Goose Carts	Crocheted Articles
	Tables	Towels and Aprons

Deaf Class.—Lip reading taught, two classes, eight pupils each.
Sight Saving Class.—Twelve pupils. Books and charts with enlarged type. Special desks, special equipment.

CHART No. VI.

Three open-air classes, ninety-four pupils.
Full dinner, mid-morning and mid-afternoon lunches.
Daily sleeping hour on cots.
Over ninety per cent of pupils slept soundly out of doors.
Food cost, 16½ cents per child per day.
Average individual gain for school year (boys), 5.3 pounds.
Average individual gain for school year (girls), 6.09 pounds.
Average gain (entire class), 5.69 pounds.

EQUIPMENT.

Open-air clothing, knitted caps, felt boots, sweaters, mittens, blanket sitting bags.
Morning questionnaire on health rules. Individual weighings. Weight-tags given. Weights recorded weekly.
Hillcrest Health Camp for Undernourished Children, Fayetteville, N. Y. Seven acres. Main building, twelve rooms, two sleeping pavilions, one play pavilion.
Number of children, three seasons, 355.
Season 1921, June 28th to September 6th, 173 children.
Average gain per child, 2½ pounds.
Average weekly individual gain (1920), 15½ ounces.
Average weekly individual gain (1921) 16¾ ounces.
Rest periods. Mid-morning and mid-afternoon lunches.
8,568 meals served.
Average cost per meal, 13½ cents per child.
Summer playgrounds, concrete swimming pool, picnicing, brook, baseball, gardening, hiking.

CHART No. VII.

A SCALE IN EVERY SCHOOL.

WEIGHINGS.

	Children Weighed	Children 10% or More Underweight
1919-1920	5,495	19.6%
1920-1921	18,308	17.8%
1921-1922	19,023	16.3%

SCHOOLS IN WHICH ALL CHILDREN WERE WEIGHED.

School	1920-1921 Number Weighed	No. 10% or More Under Weight	1921-1922 Number Weighed	No. 10% or More Under Weight
Bellevue	496	26	521	17
Brighton	791	17	822	13
Cleveland	380	10	401	6
Clinton	649	19	511	24

School	1920-1921 Number Weighed	No. 10% or More Under Weight	1921-1922 Number Weighed	No. 10% or More Under Weight
Croton	764	16	721	15
Delaware	850	18	892	14
Danforth	443	25	383	11
Elmwood	594	16	625	11
Franklin	1,028	15	1,124	24
Frazer	392	14	369	11
Garfield	324	23	322	9
Gere	426	12	439	7
Grace	117	21	150	13
Grant	270	13	304	13
Washington Irving	561	26	499	28
Andrew Jackson	547	16	472	19
Jefferson	432	18	425	11
Lincoln	840	24	850	20
Madison	756	13	870	15
Madison Annex	150	15	29	21
McKinley	910	27	996	31
Merrick	291	21	311	13
Montgomery	480	12	514	14
Porter	651	13	678	18
Prescott	558	20	875	11
Putnam	588	10	578	16
Salina	720	14	664	12
Seymour	627	25	684	29
Sumner	700	19	640	27
Edward Smith	480	12	540	14
Tompkins	308	10	304	12
Townsend	205	23	553	20
George Washington	547	22	490	18
Webster	433	21	496	19
	18,308	606 17.8%	19,023	556 16.3%

Schools showing diminution in number children 10% or more underweight, 19.

Schools showing an increase in number children 10% or more underweight, 14.

Schools showing a stationary number children 10% or more underweight, 1.

Three nutrition classes, eighty-four pupils.

Intensive physical examination, weekly meetings, daily rest periods, weekly weighings, home co-operation, mid-morning and mid-afternoon lunches, individual charts recording weights.

Three courses of lectures in ten schools on causes of malnutrition, food values, diet for children.

Spring milk campaign, third season.

Milk bar, May, 1921. Total number of visitors buying milk, buttermilk, or ice cream, 11,136.

Poster contest in public schools, newspaper publicity, essays on health habits by pupils.

Performances by Cho-Cho, Jolly Jester, Health Fairy.

OPEN AIR CARE OF SCHOOL CHILDREN.*

By CLARENCE A. GREENLEAF,

OLEAN, N. Y.

THE subject of this paper is a misnomer in a way, for while it considers open air school work, primarily, at the same time it must consider also nutritional work. I believe the name, open air school, is misleading, because we know that the nutritional part of such work accomplishes more and produces the results. If this report gives you some ideas of how such work may be begun and brought to a successful issue it has accomplished its purpose. We will

outline the methods used and the results obtained, so far, in a city of forty-five hundred school population.

In the first place, let me emphasize one point—I believe that public servants (School Medical Inspectors, Health Officers, etc.) are not fulfilling their duty, unless they utilize every possible source of assistance to accomplish results. By this, I mean, they should utilize not only the official body with which they may be connected but go outside of such. Get what assistance they can from the American Red Cross, the Anti-tuberculosis Societies, etc., and above all, stimulate a popular interest among all class in their efforts.

In this report we are considering a city of over twenty-one thousand people, with the usual charitable organizations and an "open minded" Board of Education, but no open air schools or nutritional work in operation. Such was the situation prior to the summer of 1921. An active and well financed anti-tuberculosis society was willing to build, equip and maintain an open air school. The Medical Inspector of Schools, being an active officer of this society, was authorized to build the school. The Board of Education agreed to accept the school and supply the teacher. A central location, on the campus of the high school was chosen, and during the summer the school was built.

These photographs show the Olean School and its general construction. Its special features are: Interior open to roof, allowing ample air space. Interior color—French grey (light). Light disposition—One-half east roof, wire glass. Southern exposure, ribbed glass to peak. South and east side below plate line, double sash, clear glass with center swivel hinges. No shades necessary. Each pupil has a locker. The desks are adjustable. There is a complete kitchenette and a lavatory.

The capacity is forty pupils and the building complete, cost forty-five hundred dollars.

From the beginning the idea of this school was not only to select several cases of malnutrition and others requiring special observation and treatment, and by such correlation gain definite results, but also to teach the public the need of such class rooms in order to establish this work in future building operations. Since this school was opened last September the pupils have been given a morning and afternoon diet (milk with crackers or bread and butter) and a well balanced noon meal. The results have been as follows:

	No Pupils.	10% Underweight.	Percentage.
Sept. 10, 1921..	27	20	74
April 3, 1921..	23	5	21
Total Gain			126 Lbs.
Normal Gain			38 Lbs.
Actual Gain			88 Lbs.
Treatment and Observation.....			7
Discharged			6
Received			2

* Read at the Annual Meeting of the Medical Society of the State of New York, at Albany, April 19, 1922.

This school has been watched, very closely, not only by the Board of Education, the press and those interested in such work, but also by the community at large, and with this school as an educator we began nutritional work in other schools. A survey was completed of all school children up to and including the eighth grade, showing that there were:

Total Pupils.	Below Normal.	Per.	4% or More.	Per.	7% or More.	Per.	10% or More.	Per.
3486	1900	54	1377	39	842	24	484	14

From this survey groups were selected with reference to financial assistance as Parent Teachers' Associations, individual contributors, etc., and with reference to accommodations, as room for feeding, hot water for cleaning bottles, etc. As these pupils were selected or grouped, a copy of the following letter was sent to each home.

To Parents and Guardians:

A survey of school No. — made recently shows that there are — pupils 7% or more undernourished. This does not necessarily mean that the child is underfed, but it may mean that it is more active and consequently more food is needed. Malnutrition is one of the greatest evils of a child's physique. The malnourished child is very liable to contract any disease, especially tuberculosis. The lowered resistance make him incapable of withstanding the onset and progress of disease.

The inclosed menu will help put on weight. Your child is underweight and we desire to help this pupil get back to normal by supplying morning and afternoon nourishment. We know that systematic feeding will accomplish results and ask your cooperation in this most important work which is being undertaken in the schools this year.

Yours very truly,
Medical Inspector.

MENU TO HELP PUT ON WEIGHT.

Breakfast.—Milk, bread and butter, some cereal such as oatmeal, cream of wheat, corn meal, rice or farina, oranges, thoroughly ripe or baked bananas, eggs (soft boiled, poached or scrambled).

Lunch.—10 o'clock: milk, bread and butter or crackers.

Dinner.—Vegetable soup, meat or eggs, potatoes, (baked, boiled or mashed), vegetables as peas, beans, spinach, onions, string beans, squash, cauliflower, asparagus or carrots. Deserts (rice, tapioca or bread pudding, custards or ripe fruits, raw or cooked). Milk or chocolate to drink.

Lunch.—3:30 o'clock: milk, bread and butter or crackers.

Supper.—Milk or chocolate, bread and butter, baked potato, stewed fruit, poached egg on toast, ginger bread or plain cake.

The results, in the five schools selected for this nutritional work, covering a period of approximately two months, follow:

School No. 1.

	No Pupils.	10% Underweight.	Percentage.
Feb. 13, 1922..	17	17	100
April 4, 1922..	17	9	53
Total Gain			60 Lbs.
Normal Gain			8 Lbs.
Actual Gain			52 Lbs.

School No. 2.

	No Pupils.	10% Underweight.	Percentage.
Feb. 13, 1922..	40	40	100
April 4, 1922..	40	17	42
Total Gain			97 Lbs.
Normal Gain			17 Lbs.
Actual Gain			80 Lbs.

School No. 3.

	No. Pupils.	10% Underweight..	Percentage.
Feb. 13, 1922..	26	26	100
April 4, 1922..	26	9	35
Total Gain			50 Lbs.
Normal Gain			10 Lbs.
Actual Gain			40 Lbs.

School No. 5.

	No. Pupils.	7% Underweight.	Percentage.
March 15, 1922	18	18	100
April 4, 1922	18	10	55
Total Gain			28 Lbs.
Normal Gain			4 Lbs.
Actual Gain			24 Lbs.

School No. 10.

	No. Pupils.	7% Underweight.	Percentage.
Feb. 1, 1922	33	33	100
March 31, 1922	31	13	42
Total Gain			74 Lbs.
Normal Gain			20 Lbs.
Actual Gain			54 Lbs.

Totals.

	No. Pupils.	Underweight.	Percentage.
Feb. 1, 1922..	134	134	100
April 1, 1922..	132	58	44
Total Gain			309 Lbs.
Normal Gain			59 Lbs.
Actual Gain			250 Lbs.

The question may arise as to the physical condition of these 134 pupils and I will give the record of their physical examination:

Examined..134.	Normal.....	85.	Defective.....	49.
Defective Tonsils, No. 1.....				14
No. 2.....				29
				— 43
D. A. H.				3
Defective Glands				1
Defective Vision				7
Goitre				2

SUMMARY.

What have we accomplished in health measures by this program? On April 6, 1922, Olean School District, by a two to one vote, favored a bond issue of \$630,000 to build four graded schools and additions to present schools. The

plans for the first building, to be built this summer, include an open air school room conforming to the open air school, reported above, in all its features. The same plan will be followed in the schools constructed later with reference to location. In other words, by the time these schools are completed, we will have open air schools operating in all parts of the city: central, north-east, south and west.

Also, arrangements will be made so that nutritional work can be carried out in all schools in the city.

The financial part of this program is important. We cannot ask Boards of Education, especially those Boards which are carrying a heavy bonded indebtedness and are giving all they consider justifiable for health work, to expend very largely on nutritional work. So that financial aid must come, for the most part, from outside sources. Three Parent Teachers' Associations and two individual contributors, plus pupil payment, has financed our work this year. Next year, with an extensive program, a different proposition presents itself. Many cities in New York State have a Community Chest in which one yearly drive raises funds for charitable and allied Health operations. Such a plan and organization is being perfected in Olean. Within the next few weeks all organizations represented in this Community Chest will present to the Board of Governors a budget for the coming year and now we answer the question: What has the survey given in this report accomplished?

A Community Chest Board of Governors, for the most part, consists of business men who require facts. An open statement that we have many cases of malnutrition among our children they will agree with you about, but you have got to present facts in order to open the chest. We are prepared with this survey to go before the Board of Governors and inform them that we have 484 cases of malnutrition in our schools, give them the results of last year's work and state to them that, to help this condition, we need \$29.04 each school day or a total of \$5,517.60 and it will be allowed. I believe it is necessary to have a complete survey of your schools, not only for intelligent and adequate service but also to prove conclusively what the requirements are.

It is to be doubted if any health or corrective measures appeal to parents as strongly as systematic efforts of such character, and it is to be doubted if any health measures will produce better results.

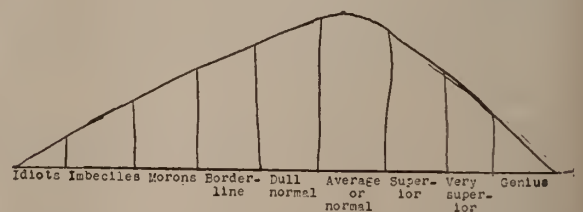
DIAGNOSTIC SIGNIFICANCE OF INTELLIGENCE TESTS.*

By STEPHEN PERHAM JEWETT, M.D.,
and
PHYLLIS BLANCHARD, Ph.D.,
NEW YORK CITY.

IT has been a matter of common observation that the various individuals of a community differ vastly from one another in physical appearance and characteristics. Even the members of the same family differ in height, weight, color of eyes and hair, and many other details. These individual differences have been so obvious that they have not even created comment. On the other hand, the knowledge of similar individual differences in mental make-up, because its full significance was for so long unrecognized, has of late been the subject of much scientific and popular discussion. Moreover, it is a subject of importance not only to academic psychology, but one of innumerable practical implications for educational methods, social institutions, and medical practice. Therefore the methods of determining individual differences in mentality, and the significance of such findings, is of interest as a topic of discussion in a medical group.

We have always known of the existence of such marked intellectual differences as are apparent in contrasting the imbecile, the average individual and the genius. The elaboration of objective methods for estimating the intellectual capacity has shown us that there are between these obvious differences of mentality an infinite series of gradations, extending from the idiot up through the imbeciles and still higher grade defectives known as morons, through a borderline group and a still higher class who are only dull, into the great mass of individuals who represent the average and are therefore termed the intellectually normal, and even above these, into levels of superior, and very superior intelligence, until we reach the smaller group of geniuses, whose intellectual processes still defy measurement on our yet imperfect scales. This distribution of intelligence may be graphically represented by the classical bell-shaped curve (or curve of normal distribution).

This distribution of intelligence, which is representative of society as a whole, is not based



* Read at the Annual Meeting of the Medical Society of the State of New York, at Albany, April 19, 1922.

upon advantages of education or environment, but is indicative of innate differences in intellectual capacity which are existent in the individual from birth, and which determine to what extent the particular individual will be able to profit by educational and environmental opportunities. Just what we mean by "innate intellectual capacity" may be best brought out by a hypothetical illustration. If we should imagine two children of approximately the same innate intellectual capacity, one of whom is brought up in isolation from infancy, the other having the best educational advantages, we can picture the latter as learning to read and write, etc., while the other child grows up in ignorance of these accomplishments. Yet if the first child should be removed from his isolation, he, too, would soon learn these things, and after a time would be able to read and write as well as the child who had always been in school. Moreover, could we measure the intelligence of these two children by means of tests entirely independent of educational material, we should find them arriving at almost identical ratings upon such a purely objective scale for the measurement of intelligence, although the child who had been deprived of environmental advantages might appear stupid beside the developed abilities of his more fortunate brother.

In so far as possible, the various intelligence tests in use for the estimation of the "mental age" of individuals, do aim to measure innate differences in intellectual capacity rather than differences due to educational and environmental advantages. The earliest intelligence scale of this type was devised by Binet. It consisted of a series of tests, which by 1908 were classified into groups under certain mental ages. The grouping was determined by actual experiment; the three year tests were those which the majority of three-year-old children were found capable of answering correctly, the four year tests were those which the average four-year-old child was found able to answer, and so on up the scale. Thus, a child with a chronological age of eight, who could answer only such tests correctly as were in the five year group, was considered to have the intelligence of the average five-year-old child, which was expressed by saying that he had a *mental age* of five years. This Binet scale was revised by the author several times, and was also revised by Goddard, and later by Terman of Stanford University. Terman's revision of the Binet scale, which is known as the Stanford Revision, or the Stanford-Binet, is the one most generally in use at the present time.

In order to estimate the intellectual capacity of individuals who are illiterate, who are unable to speak English fluently, or who are deaf and dumb, some other measuring scale had to be devised than the Stanford-Binet, with its de-

pendence upon language expression for its success. The tests most often used in such are the series of performance tests devised by Pintner and Patterson, and modified for use in the army to a flexible scale including as many or as few tests as time permits or the exigencies of the case demand. These tests are quite independent of language; they can be given by pantomime, and involve only the manipulation of concrete material. The score on these tests, when translated into terms of mental age, does not always correlate with that of the Binet, as tried out on individuals capable of doing both types of tests; but the reactions to these performance tests, as interpreted by the expert technician, give a fairly accurate estimate of the intelligence-level.

In addition to individual differences in general intelligence, there are also individual differences in respect to special abilities or aptitudes, and even special disabilities, which raise or lower the person far above or below his general level of intelligence along certain lines of endeavor. An individual of rather low general intelligence, for example, may be so gifted with manual dexterity as to make him an expert workman in some occupation largely depending on this ability. Thus there have also been devised tests for detecting abilities along various vocational lines,—mechanical, mathematical, clerical, etc., as well as scales for the measurement of general intellectual capacity.

The practical application of the data obtained by psychometric tests is fairly apparent in certain directions. It is easily seen, for example, that if classes of school children are subdivided into groups according to their intellectual level, so that bright children are placed in one division, average in another, and dull and backward in a third, the problem of education will be much simpler both for the teacher and for the pupil. Such subdivisions according to mental makeup will do away with attempts to keep the bright child out of mischief in the leisure which his superiority affords him over less gifted classmates, and also with the constant endeavor to force the subnormal child up to the standard of his grade. Again, the actually defective child can be removed from the regular grades and placed in special classes where he can be taught such simple processes as can be comprehended by his limited intelligence, with a view to rendering self-supporting whenever possible.

Experience with the various mental tests in the army demonstrated the value of utilizing the information furnished by this means in vocational selection. The same methods have also been applied with success in many instances to industrial organization.

As the medical profession is called upon to deal more and more with mental disease, and particularly with conductor disorders and antisocial behavior of all kinds, the use of tests for

the measurement of intelligence is also finding a place in this field. The intelligence tests offer invaluable assistance to the psychiatrist who is called upon to advise whether to send the youthful offender to a training school for the feeble-minded, to a reformatory for the intellectually normal, or to give him an opportunity on probation to develop some neglected special ability which may absorb his energy and interest, and in itself act as a therapeutic agent.

Or, when a boy suffering from cerebellar ataxia is brought to the mental clinic, who in spite of uncoordinated movements and poor speech control is able to make a mental age of ten on the Stanford Binet when his chronological age is only nine, the psychiatrist can at least offer the mother the consoling advice that her son is capable of normal intellectual development. When a child who is not "getting on" in school is brought to the psychiatrist for diagnosis, and the mental tests show him to be perhaps of superior intelligence, it becomes unnecessary to waste further time on that aspect of the case, but with the possibility of mental defect ruled out to search for other causative factors in the physical condition, the personality makeup, emotional conflict, or necessity for some environmental adjustment. In such ways, the intelligence tests often afford a saving of much time to the busy psychiatrist.

To quote a case in detail, a mother brings to the physician her son who has apparently recovered from an attack of manic depressive psychosis. The neurologist suspects some retardation of responses is still present, although most symptoms have disappeared, but before definitely advising the mother whether to return her boy to school, he sends him for an intelligence test. On the Stanford-Binet this patient makes a mental age of thirteen years. His chronological age is eighteen. On the short performance series, the final score is 216, which is equivalent to a mental age of fourteen years, six months. Both these ratings would rank the boy as of subnormal intelligence. His previous history, however, has been that of a boy of normal intelligence. He had been doing creditable work in the last year of high school just previous to the onset of his illness, which Terman estimates to require a mental age of at least seventeen years on the Stanford-Binet, while the patient's rating on this test, as stated, was only thirteen years. Moreover, his manner of reaction to the test was such as to indicate that some emotional disturbance was still interfering with the faculties of attention and association. There was always a long interval between the presentation of the problem and the response, and in many instances, unless the instructions were repeated, the responses were irrelevant and inadequate. In view of these findings, the neurologist consulted was able to

advise the mother that her son was not yet able to continue his school work.

In many cases of similar nature, the intelligence tests serve for further purposes than the mere selection of the mentally defective. In doubtful cases, where the diagnosis is suspended between mental deficiency and incipient mental disorders of psychotic nature, peculiar responses to the intelligence tests are of more diagnostic significance than the actual rating achieved. An uneven and erratic performance on the Stanford-Binet, in which the subject fails on tests which are graded at a fairly low age level but succeeds upon tests graded at a higher level, is one just cause for suspicion of some other factor than simple *amentia*. A marked delay between the presentation of the problem situation and the response, necessity for constant repetition of instructions in order to secure a response, irrelevancy and inadequacy of the response finally obtained, tendency to overelaboration of responses, affective reactions out of harmony with the situation, tendency to argue about problems presented, undue irritability or facetiousness in reactions to situations presented, these are all reaction-patterns indicative of some underlying emotional disturbance. Any combination of peculiar reactions of this type is of much more significance than the actual rating on the intelligence tests, and indicates the necessity of careful examination for incipient psychosis or some other difficulty aside from mental defect.

Both psychologists and psychiatrists have very often been guilty of neglecting the significance of reaction-patterns, and accepting the rating on an intelligence test at face value in making diagnoses. In some cases this has led to the diagnosing of a patient of normal intelligence as mentally defective, when subsequent events demonstrated that the real difficulty centered in an emotional disturbance or mild psychotic attack. An experimental study conducted by the authors of this paper, and reported at length in the January number of *Mental Hygiene* under the title of "Influence of Affective Disturbances on Responses to the Stanford-Binet," indicates that in cases of emotional disturbance or mild psychotic states the rating on the Stanford-Binet may fall from two to three years below the actual mental age of the individual in his normal condition. Such a degree of difference in rating would mark the differentiation between high grade mental defect and dull normal intelligence, in many cases, hence the possibility of incorrect diagnosis if too much emphasis is placed upon the rating on a single test. A typical instance may well be quoted from the paper referred to above.

D. K., female, white, age 16.—Admitted to Bellevue Hospital for observation, May 16, 1920. Charged with immorality and running away from

home. Prior to admission had been in charge of the S. P. C. C. for about two weeks. Reported to have been "hysterical" during that time, using vile language, destructive, hiding knives in her clothing, etc. At Bellevue, her mood alternated from a mild elation with restlessness and flightiness to periods of inactivity and mild depression. These symptoms were not sufficiently marked to warrant commitment, and she had intervals of appearing practically normal. The Stanford-Binet, given May 25, 1920, rated her at a mental age of 12 years. The comments of the examiner read as follows: "The evidence of mental tests is that this patient is of inferior intelligence, but not sufficiently low on the scale to be technically termed mentally defective. Technically, she would be described as of borderline intelligence. Patient is confiding to the point of being somewhat garrulous. Her performance is consistent in revealing a low grade of ability, not quite reaching the level of the moron."

Inasmuch as the patient improved to a marked extent and her symptoms were not sufficiently severe to warrant commitment to a hospital for the insane, the psychological test was considered accurate, and the patient was returned to the S. P. C. C. on May 29, 1920, as a case of borderline mental deficiency.

Second admission to Bellevue Hospital, October 28, 1921. Was restless for a day or two after admission, but soon became quiet. During her stay, her conduct on the ward was normal and her attitude was agreeable. A Stanford-Binet was given November 9, 1921, and she made a mental age of fifteen years three months. The psychological summary was as follows: "By the rating of the examination the patient would class as of normal intelligence. Attention and effort good. Both rote and logical memory excellent; judgment fairly good."

Similar fluctuations of the rating on intelligence tests during even shorter intervals were found to occur in other types of patients. In drug addicts, the intellectual efficiency as represented by the rating on the Stanford-Binet fluctuated with the administration of the drug and with withdrawal symptoms, as well as with the stage of cure. In cases of "psychic constitutional inferiority" the rating on the test varied with the mood-reaction. There is similar variation in epileptics, and encephalitic convalescents often pass through a stage closely simulating mental defect. Even such an ordinary emotional reaction as fear may block the processes of attention and association to an extent that the picture of mental deficiency is produced.

With sources of error recognized, and due allowance made for them, the intelligence tests still remain of much practical value to the physician who is concerned with the treatment of

mental disease and conduct disorders. Not only do they aid in the making of the initial diagnosis, but they are also of assistance in some cases in determining the stage of convalescence more accurately than by a psychiatric examination alone. Again, such men as Healy, skilled in the therapeutic measures necessary for the adjustment of conduct disorders, base many recommendations upon a knowledge of special abilities and aptitude discovered by the use of various psychological tests. The uses to which the intelligence tests can be put are, indeed, innumerable, but their utilization must always be wise and discriminating. We must never allow our enthusiasm for a new and simple method to make us forget that the data furnished by the psychological examination is only one side of a clinical picture with manifold aspects, and that only as interpreted in relation to other factors of the case, the heredity, personal history, school record, physical and mental condition, emotional reactions, behavior, etc., are they of value for diagnostic purposes or as a basis for recommendations.

THE FLUROSCOPE IN MODERN CARDIOLOGY.*

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THE progress of the application of radiology to medicine has been very slow as compared to the progress made in its surgical use. For that reason it is important to take occasion to impress its value and thus encourage its study.

Fluoroscopy of the heart is a most fascinating occupation when one has learned what to look for, and the significance of what is seen. First let us study the heart of an average normal person. As we examine the image of the heart and of the stem of the heart consisting of the great blood vessels, we find on following the left contour from the bottom up (on leaving) the dome of the diaphragm and (going toward) the left sterno-clavicular articulation there are three parts in the border.

First a line convex to the left curving upwards obliquely to the right, which corresponds to the left ventricle. About the middle of this curve is the junction of the ventricle and auricle. In fluoroscopy this point is quite plain because the auricle and the ventricle move at different times, the auricular time being presystolic in its contraction and the ventricular time systolic. From this point, the curve is often slightly concave to the left and represents the left auricle and the pulmonary artery. The study of the pulsations distinguishes these two parts, the pulmonary artery expanding in systole while the auricle shows a

* Read before the Medical Society of the Greater City of New York at the New York Academy of Medicine, December 18, 1922.

presystolic contraction. Very often this part of the curve shows two minor convex curves the one represents the auricle and the other the pulmonary artery.

Going upward the next object that we see is a large convexity to the left which responds to the beginning of the arch of the aorta. Above this, we find the shadow of the breast-bone and vertebral column.

The right border starting at the dome of the diaphragm shows two parts in its contour. The first part is slightly convex to the right and corresponds to the right auricle. Sometimes at the very lower part of this line the right ventricle is visible. When this happens it is easily distinguished because its motion is systolic. The second part is nearly straight and corresponds to the superior vena cava. Sometimes the aorta is distinguishable at the upper part of this curve.

The lower part of the heart which corresponds to the right ventricle is obscured by the diaphragm. The apex of the heart, gently rounded corresponds to the lowest part of the left border where it is close in relation to the diaphragm. On deep inspiration, the apex disengages itself from the shadow of the diaphragm. In a normal person, the right ventricle rests horizontally on the diaphragm; the right border of the right auricle is vertical; the left border of the left ventricle is definitely oblique.

It is very necessary that anyone attempting fluoroscopy should have very definite, schematic mental pictures of these structures and should examine each one in turn with concentrated attention while looking at the living heart. An unusual heart carefully studied, makes an impression so that months or years later, seeing the same heart or a similar heart, the whole clinical history and the nature of the disorder is immediately recalled.

The mobility of the heart and its pedicle must never be forgotten in interpreting either an X-ray picture or a fluoroscopic image. During deep inspiration, the heart descends with the diaphragm and its distinct contours become less marked though the apex is much more visible.

It has been routine with us for a long time to examine every patient with a fluoroscope and at the same time record the picture with a film, with the tube at least six feet distant and the chest as near the film as possible. The film has the advantage of giving a picture the same size as the heart and of enabling the observer to recall what he has seen in the fluoroscope. Still, I would rather forego the roentgenogram than the privilege of observing the heart in all its activities. Although a series of X-ray plates furnish a permanent record when these are used many heart sufferers are excluded from the benefits of the X-ray examination on account of the labor and expense. When the fluoroscope is freely used, physicians get the training that comes from

numerous examinations, not involving burden some expense.

There is nothing that can take the place of fluoroscopy as a short cut in the diagnosis of cardiac disease. It puts one immediately on the track of the disorder but later it must be combined with every other method of examination as a means of determining the nature of the trouble. In the severer types of heart trouble that have led to important changes the picture often tells the entire story. But its greatest value to me has been in the detection of minor impairments where the stethoscope has entirely failed. Indeed the fluoroscope combined with the electrocardiograph has detected at least thirty per cent of otherwise unknown conditions outside of our classified disorders of the heart.

The value to people suffering from heart disease of adding to the number of conditions that must be taken into consideration is, on the whole beneficial. Many individuals with minor impairments are perfectly conscious that something is the matter with them and they will not take a negative opinion from anyone. If somebody is able to recognize the impairment and explain it, the person can be relieved or he may even be able to carry his impairment in a philosophical manner, which was not possible when his trouble was a mystery.

The medical schools are now giving intensive training in the anatomy and physiology of the heart, so that facts which are at present known to only a few will be a matter of course to the next generation of physicians. In the interim, it behooves our larger institutions to adopt fluoroscopy as a routine matter because it will reveal a good many unsuspected impairments and will thus save an immense amount of labor in drawing inferences without sufficient data. It will also occasionally reveal a condition of the abdomen or chest which calls for prompt operative intervention and as a result saves life.

When the chest is placed behind the screen and the roentgen tube is charged, one sees the shadow of the mediastinum outlined on the clearer borders of the lungs. The heart pulsations are clearly perceived and the respiratory movements are interpreted by the vertical displacement of the heart by the raising of the ribs, by the increase of the thoracic cavity, and by raising and lowering of the diaphragm. The anterior and posterior mediastinal spaces are shown by rotating the body of the patient from left to right. These appear clearly because of the slight density of the tissues and it is easy to observe the outline of the denser organs as well as to discover additional shadows of pathological origin. Finally, examinations in the dorsal or lateral positions complete in a very short time a series of observations of the thoracic shadow as a whole.

Allowing for a distortion of the shadows due

to the nearness of the tube, fluroscopy is much easier than one would suppose. In each instance I studied the heart with the fluroscope and subsequently in a teleoroentgenogram. I believe that I have acquired the faculty of mentally discounting the larger shadows of the fluroscope. At any rate the observation of the heart with the fluroscope enables me to form an opinion of the condition that is usually confirmed by collateral investigations.

When in Edinburgh, I had the opportunity to stand beside an accomplished fluroscopist and observe hearts as they passed in rapid succession. I found there was very little difference in opinion as to the diagnosis of the condition in the vast majority of cases and that this impression was confirmed when the details of the case were known later. I prefer seeing a heart with the fluroscope before knowing much about the condition because even in the absence of disease, the direct observation of the heart makes me acquainted with its general personality, as it were, which forms a good basis to build my survey upon. Indeed, one of the great difficulties in the whole subject of the heart is this matter of the individuality of hearts. The student insistently demands a description of what he is pleased to call a "normal heart." There is really no such entity as a normal heart. The nearest approach can be found in a heart which is normal to the person carrying it. The heart of a laborer would not be normal to a bookkeeper; and the heart of a tall, thin man would be a strange finding in the chest of a short, fat person.

The heart, as seen by the fluroscope, varies according to the position of the patient so that one must be familiar with the fluroscopic images in various directions. As a rule, the fluroscopic examination in the anteroposterior positions is sufficient, but the person may be rotated and various views obtained. The upright position fulfills all purposes in most instances.

The following description of the various positions of the heart is adopted from the section on clinical significance of X-ray examination "The Radiogram and Orthodiagram," by Carl J. Wiggers, pp. 244-246. Combined fluroscopic, radiographic and orthodiagraphic examination of diseased conditions give evidence of the nature of affection through the occurrence of changes in (a) the character of the pulsation, (b) the position of the heart and (c) the size and form of its outline.

In fluroscopic examinations the lower right border (right auricle) expands extensively during systole in some cases of tricuspid regurgitation. The upper left border (aorta) gives strong systolic expansions in aortic insufficiency. Whenever the pulsations of the left auricle become visible, as in mitral lesions, they are differentiated by being presystolic in time. Strong pulsations of the pulmonary artery are evident on the left side

in cases of persistent ductus arteriosus, or more frequently when a severe stasis due to mitral lesions is present. They have been observed when an aneurysm ruptures into the pulmonary artery, but this event is rare. Abnormal rhythms, as heart block and pulsus alternans, have been studied and diagnosed by fluroscopic methods, but this procedure possesses no obvious advantages over auscultation.

A change in the position of the heart may occur (a) from congenital causes, as situs inversus viscerum, (b) from pleural and percardial adhesions, or (c) from changes in the intrathoracic volume. These last are very common. Even normal variations are caused by the varying positions of the diaphragm. In long-chested individuals, the cardiac shadow is long and narrow, the axis being more vertical, while in short-chested individuals or in those in whom the diaphragm is pushed up by abdominal distention, it is broad and assumes a horizontal axis. Its position changes as the diaphragm ascends and descends in respiration. It should be remembered that normally the heart is subject to considerable shifting and undue weight should not be attached to slight variations in position. If for any pathological cause (e.g. enlargement of the liver) the right dome of the diaphragm is pushed upward, the heart shadow will be displaced to the left. Pulmonary affections such as atelectasis, tuberculosis and pneumothorax cause a traction on the heart toward the side of the lesion. On the contrary, pleural effusions, tumors, etc., push the heart toward the opposite side.

Changes in the size of the heart shadow or orthodiagram when sufficiently marked to be safely beyond the limits of normal variation, are of the greatest practical importance when obtained by guarded technique. The heart shadow probably decreases whenever the heart accelerates (e.g. in exercise, tachycardia, after atropine), although the results obtained concerning this point have been discordant. During asthmatic attacks the heart is also reduced in size. A condition stimulating asthma, as far as the effect upon the circulation is concerned, can be produced by the well known experiment of Valsalva which consists in taking a deep inspiration and then, with closed glottis, making a forced expiration. This diminishes the blood content of the heart which accounts for its decreased size. In tuberculosis the shadow is decreased, and here it is often assigned, but without good reasons, to an actual hypoplasia of the heart muscle.

The heart outline increases after continued hard labor or exercise, pathologically also in nephritis and arteriosclerosis. In these cases an actual hypertrophy resulting from the greater strain to which the heart has been continually subjected is usually the cause. The increase in size (often temporary) associated with acute

infections such as diphtheria, scarlet fever and polyarthritis is no doubt accounted for by a dilatation of the heart.

The details of the enlargement are of the greatest importance in heart lesions in which it is due either to dilatation or to hypertrophy and hence accompanies only lesions of considerable duration and severity. The nature of the dilatation or hypertrophy determines the direction of the enlargement and the contour of the shadow. A left ventricular enlargement takes place to the left. Dilatation or hypertrophy of the right ventricle displaces the shadow partly to the right but also, to a marked degree, upward and to the left. In typical cases of aortic insufficiency the heart shadow is enormously increased toward the left and the contour resembles a horizontal oval or is sometimes called "shoe-shaped." The aortic shadow is increased in width and the apex is never merged with the shadow of the diaphragm. Aortic stenosis causes very similar though less pronounced changes in the radiographic outline. In mitral stenosis the heart shadow which is relatively small, resembles more nearly a vertical oval. The enlarged left auricle becomes prominent on the left margin and above it the pulmonary artery bulges, thus giving the entire left border a step-like appearance. In mitral insufficiency the enlargement tends to be uniform in all directions, giving the shadow the appearance of a poorly rounded circle. The right auricle border is distinctly enlarged to the right and the pulmonary artery dilated. The left ventricular shadow is increased toward the left.

With reference to shadows of the heart in its normal state, an excellent description is to be found in Chapter II of the "Heart and Aorta," by Vaquez and Bordet, and in a little book by R. Lutembacher.

An element of embarrassment in presenting this subject of fluoroscopy is that the question of personal skill comes in and training of the observer is necessary. It is always the ideal of scientific work to substitute some mathematical formula or instrument of precision that will eliminate the personal equation. In cardiology nothing is more popular than the arithmetical formula, but so far it has usually failed to be useful.

The art is capable of systematic development and of very definite interpretation. It is particularly valuable in proving and disproving a negative diagnosis. Striking instances appear in daily work where pretty good men pronounce a heart normal when the fluoroscopic examination, even to the casual observer, shows enlargement or deformity of the cardiac image.

Fluoroscopy is particularly valuable as a routine procedure in the examination of large numbers of patients to determine which are deserving of detailed cardiologic study and which are not.

ACUTE ULCERATIVE ILEO-COLITIS.

By E. LEONARD BENJAMIN, M.D.,

NEW YORK CITY.

A CASE of acute ulcerative ileo-colitis, with perforation. This is a case from the service of Dr. Herrman at Lebanon Hospital, during the month of September, 1922. This boy was four and a half years old.

F. H. His mother was thirty-four, born in Austria, alive and well. His father was thirty-four, born in Austria, and just recovering from an appendectomy. I bring out the nativity of his parents, because the Austrians are very fond of pork, and this fact might have some bearing on the history of this case. There are three other children in the family, two brothers, twelve and one and a half, and one sister, ten years.

P. H. Shows that the child was born at term, normal delivery, breast fed up to a year, and was never prone to disorders to digestion, in fact had never been ill before this present illness.

P. H. The child was admitted to the service on September 14th, 1922. Five days prior to admission, he ate a meal, consisting of pork sausage, potatoes and milk, with a second helping an hour or two later in the afternoon. He played around in the street for a few hours after this meal, and the late afternoon of the same day came up to his mother, and told her he felt tired and then went to sleep. That evening he vomited, after having been given castor oil. The following morning he refused all food, and felt very feverish. No chills nor sweats. Complained of severe abdominal pains and had many loose watery stools slightly blood-stained. He vomited all food for the next few days, and continued to have frequent watery stools, with mucus and blood, with colic and tenesmus. Lost considerable weight, his parents claiming it was about ten to fifteen pounds. The rest of the family had also eaten the same meal, but nothing happened to any of them. On the fifth day of his illness, the boy's condition became very grave and he was sent to the hospital.

On admission we found an extremely emaciated boy about five years of age, intensely dehydrated, with nothing but a dry wrinkled skin to cover his little bones, and suffering from intense thirst. His temperature was 103, his pulse was 130, weak and compressible, and respirations thirty-eight and very shallow. He was greatly prostrated and could not move his limbs. Skin was pale, lips dry and excoriated, and covered with sordes, eyes sunken deep in the sockets. Pupils equal, and reacted to light and accommodation. No nystagmus or strabismus.

Neck very thin, and no palpably enlarged lymph nodes.

Tongue dry and heavily coated, and extreme pallor of the mucous membrane of the mouth.

Chest: The clavicle, ribs and scapulæ were very prominent, with hardly any subcutaneous tissue covering them.

Lungs: Negative.

Heart: Sounds were regular, very weak, and no murmurs present.

Abdomen: Was scaphoid in type, Skin dry and wrinkled and hanging in folds showing the great loss of weight.

Liver: Was palpable to two inches below the costal arch.

Spleen: Palpable.

There was tympanities and a generalized hyperæsthesia.

Extremities: Muscles were tender and flaccid, limbs wasted, and the boy was hardly able to move them. No Kernig, no Babinski. Rectal examination revealed a hypotonicity of the anal sphincters but no palpable mass. During the first few days the temperature ranged between 103-104, the prostration was great, the vomiting persisting, and the tolerance for food markedly reduced. He had between six to eight stools daily, mostly watery, with mucous and blood.

Treatment.—Because of the extreme prostration and severe dehydration, we started him on hypodermoclysis (1000-1200 cc. daily). Retention enemas of whiskey, one ounce, and sodium bicarbonate, two ounces, B. I. D. and high colonic irrigations were given B. I. D. Digalen, gtt. viii., and strychn. gr. 1/200 and camphor in oil were given by hypo. every four hours. Fractional doses of calomel gr. 1/4, followed by oil was also given.

He improved on the fourth day, and his temperature came down to below 101 and remained down for three days and his general condition appeared to be better. He still had frequent stools, but not so watery and more feculent in character, with little mucous and blood. Anorexia was less marked and he was able to retain a little food.

His distention was slight, but the hyperæsthesia was still present. On the seventh day his temperature rose to 103 and he became drowsy, his abdomen became more distended and he refused to take any nourishment. His stools became more frequent and tenesmus increased. He was given starch enemas and a mixture of bismuth, opium and chalk, and later tannigen. He improved for a day or two and took a little nourishment and the vomiting subsided. Urine examination was negative. Three Widal's, taken during different periods in the course of the illness, were negative. Stools were examined and the prevailing organism was B. Coli. Blood culture was sterile after three days. Blood count: W. B. C., 15,200; Polys, 82 per cent; lymph, 18 per cent. On the eleventh day (three days before death) he felt considerably im-

proved, took a little nourishment and the number of stools decreased. Stools were small, soft, brownish-green, with little or no blood. Took plenty of fluids. Temperature 99 in A. M., 104.6 in P. M.

On the twelfth day (the day before he died) his abdomen became very much distended, and he suffered from intense colic and tenesmus, with increased stools containing blood and mucous; temperature, 104.8. His distention increased during the next twenty-four hours, and he died the next day from a peritonitis due to a perforation of the bowel.

A post mortem examination revealed an ulcerative ileo-colitis, with perforations of ileum and transverse colon and general peritonitis.

The case is presented, not only to briefly exemplify the rare complication, a perforation of the bowel, due to the resulting ulcerative ilio-colitis, but also to emphasize the fact that these cases generally begin as harmless intestinal indigestions, which clear up in a few days with rest, diet and catharsis. But, which run a protracted and fatal course, when the child affected, has a very poor resistance.

We've been accustomed to see these severe cases during the summer months or during epidemics. However, they may be seen at all times. Here is a child, never ill before, eats a meal consisting of pork, potatoes and milk, suddenly become intensely ill, resistance very poor, and prostration rapid and great.

MOSQUITO CONTROL IN NASSAU COUNTY.

By ARTHUR D. JAQUES, M.D.,
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ONE of the latest forms of trenching machines used in mosquito control work is shown in the accompanying illustration. This is designed to be used on salt meadows with sand underlying a sedge, six to eight inches in thickness. The trench cut is V shaped with the apex of the V cut off. The dimensions of the finished trench are thirty inches wide at the surface and ten inches deep.

This trench digger was designed by Mr. Wm.





H. Demott, engineer of the Nassau County Mosquito Commission, and was used successfully on the meadows back of High Hill Beach, in Nassau County. The power plant is a five-horse power Fairbanks-Morse engine, which alternated in first pulling the plow to dig the trench and then pulling itself forward for the next trench digging operation.

The advantages of this outfit was that a trench was dug whose sides would not cave in; the cost of digging was low, being 1.2 cents per linear foot, against four cents or more for contract work. The Commission uses its own men, transporting them by boat eighteen miles each way every day.

It was gratifying to note that twenty-four hours after digging a trench the meadows previously covered with water would be dry enough to walk on without boots or rubbers.

HEMORRHOIDS.

By ROBIN HOOD, M.D.,
NEW YORK CITY.

THERE is something radically wrong with the medical profession in its attitude towards diseases of the rectum.

For some fifty years now carbolic acid in weak solutions has been used successfully as an injection for the cure of hemorrhoids. What does the average medical practitioner know about it? Nothing. Why are only surgical methods taught in our medical colleges? Is it possible that it is because proctology is a branch of the surgical department?

Compare the two methods briefly under just two heads: (1) confinement in hospital, and (2) pain. With the *surgical removal* the patient must be away from business for a period varying from several days to several weeks, and the pain and suffering following the operation is something naturally dreaded. With the *injection method of curing hemorrhoids*, there is no detention at all from business, and there is no pain. The injection method has numerous other points in its favor, but I want to be ultraconservative, and at any rate, these two are sufficient.

Talk to any of the surgeons on the staffs of any of the hospitals and his argument will be something like this: "Oh, that injection stuff! In the first place, it is not good surgery, and then only the quacks and charlatans use that." Stuff and nonsense. Of course it is not good surgery; it isn't surgery at all! I don't care what manner of men used it in the past; I don't care how or where it originated; but I do say it is in all ways the best method of curing hemorrhoids, and therefore I am going to use it.

Most people suffering with hemorrhoids are told by their physician that the only thing to be done is to have an operation, and there are thousands who have decided to suffer with their hemorrhoids rather than submit to an operation. It is a crime that these medical men do not know enough about rectal work to tell their patients that they can be cured, and that an operation is not necessary.

Why is not every medical student taught this? If any student in a medical college or post-graduate institution has the temerity to ask: "What about the injection method of curing hemorrhoids," he is told that that is not used by anybody but irregulars. How absurd! What is irregular about curing hemorrhoids, or anything else for that matter, in the way that is best, and easiest, as well as harmless to the patient?

So again I say there is something radically wrong with the medical profession in its attitude towards diseases of the rectum.

There is no reason in the world why at least a *knowledge* of this method should not be a part of the armamentarium of every physician. The medical college, it seems, teaches everything else but the different methods of curing disease. This is just one of the reasons for the great increase of chiropractors and other cults.

When the medical colleges and post-graduate institutions realize that they are not doing anything like their full duty until *all* methods of treatment are taught, then the physician will be properly equipped to advise the patient what method to pursue.

PAY CLINICS.*

By **EDEN V. DELPHEY, M.D.,**
 NEW YORK CITY.

IN delving into the subject of pay clinics, we are seeking after the truth, and although the truth may not "make us free," it will at least in this instance throw some light upon and give us a better understanding of this most interesting and imperatively important subject under consideration. The medical profession, constituting less than one-sixth of 1 per cent of the population of this city, is doing 95 per cent of the medical charity, is doing it cheerfully and is willing and ready to continue to attend and treat sick and deserving people for nothing if they can not afford to pay for the services.

According to the Secretary of the New York State Board of Medical Examiners, the time spent in getting an education from the time when the person begins in the primary school until he is ready to begin the private practice of medicine and earn his own living is as follows:

Time spent in the Primary and Grammar schools	8 years
Time spent in the High School.....	4 years
Time spent in the Academic School.....	2 to 4 years
Time spent in the Medical School.....	4 years
Time spent in the Hospital as Interne... 1 to 2 years	
	— — — — — 19 to 22 years

Therefore, if he begins school at the age of six years, he will not be ready to begin to earn his own living by the practice of his profession until he is from twenty-five to twenty-eight years of age; and the time and money spent in obtaining his professional education, from the time he graduates from the High School, at the rates of compensation ordinarily paid to other persons of the same age, is estimated to be about \$20,000. Moreover, during the course in medicine he receives instruction of from 5,000 to 6,000 hours and is also required to put in from 2,000 to 3,000 hours' study "after hours" in order to keep up with his classes and graduate at the end of the course.

It has been quoted this evening that "only the very rich and the very poor receive the best medical treatment." The present speaker most emphatically denies the truth of that statement. It was first made by a teacher in one of our eastern medical colleges in a lay magazine and he apparently found it necessary to reinforce the value and bolster up the effect of that statement by the insertion of half-tone pictures of his wife and children. The average people—the great middle class—are receiving the best attendance and treatment which medical art and science is able to give to anyone, and that by the modest, unassuming general practitioners of

medicine who do not exploit themselves or indulge in the latest fads or untried fancies, but who go quietly and industriously among their patients, diagnosing their ills and curing their maladies without the clashing of cymbals or the open or insidious advertising which is so common among managers of the "public," "free" or "pay" clinics.

Statements are often made about the medical treatment of the poor. Who are the poor? The first speaker, this evening, said that 87 per cent of the middle class earned less than \$2,000 per year and that one-third of that number earned but \$800 per year. In the April number of THE NEW YORK STATE JOURNAL OF MEDICINE, received today, it is stated editorially that the average income of practitioners of medicine in New York State is but \$900 per annum. If the income of any one class is larger than that of another, the first is certainly not entitled to receive charity from the hands of the one receiving the smaller income. A few years ago, one of our oldest medical colleges—the one whose teacher made the statement about only the very rich and the very poor receiving the best medical treatment—made an investigation into the status of its own graduates and found that only about 10 per cent of them were earning their living entirely from the practice of medicine and unassisted by any other means of support. Inasmuch as the great foundations have been organized to give free medical treatment to the poor, and since the average physician's income is far less than the maximum and very near the minimum quoted, have they considered the organization of a foundation to give the physicians housing, clothing, food, and other necessities of life at a similar under-cost rate? If they have or should do so, do they imagine for a moment that any self-respecting physician would so far forget his independence and manhood as to accept such charity, for, giving medical treatment for \$1.52 which costs \$2.03¹ is charity and nothing but charity.

In determining the cost of living per family, the investigators are accustomed to consider a family as consisting of five persons, while in fact the following are the real statistics:

	N. Y. City ²	N. Y. State ³	U. S. ²
Number of families..	1,129,656	2,225,000	24,351,676
Number of children..	1,592,251	3,010,000	35,473,382
children per family	1.41	1.35	1.46
Average number of persons per family.	3.41	3.55	3.46

In other words, when the investigator estimates the cost of living on the basis of five persons per family, the result is based upon a number which is about 50 per cent too high. During the year 1913—the last year in which we have reliable statistics—the foreigners in this country not only earned enough to feed and clothe themselves and to pay their other necessary expenses

* An address delivered in part in the discussion on Pay Clinics before the Hospital Social Service Association, at the New York Academy of Medicine, Wednesday evening, April 18, 1923.

but had enough left to send \$300,000,000 to their friends and relatives in Europe.⁴ Does that look as if they needed medical charity? Moreover, during the year 1921, the people of the United States spent the enormous sum of \$22,000,000,000 for luxuries alone.⁴ Does that look as if they were too poor to pay a private physician a few dollars occasionally for medical advice and treatment? Bear in mind that not every person needs to be under a physician's care even every year.

It has been said that "medicine is expensive," but it is not nearly as expensive as the luxuries, many of which may be either the direct or indirect cause of the illnesses. A physician's remuneration should be directly in proportion to: (a) the good that he does the patient; (b) the patient's ability to pay for the services; (c) the time and work the physician gives to the case; (d) the cost of the physician's preparation for the kind of work he does; (e) the physician's ability to earn; and (f) the physician's overhead expenses for doing business. If a lawyer charges a certain percentage—usually 2½ per cent—of the value of a man's estate to administer it, why should not a physician charge a relatively equal, or even a larger amount to prevent the need of such administration?

Something has been said about the adequacy of medical treatment and the first speaker referred to the general practitioner's "looking at a man's tongue and giving him a pill" in cases of pneumonia. In his thirty-four years of practice of medicine the present speaker has mingled with all classes of physicians and he has never even heard of a case of pneumonia being so treated. There is altogether too much sneering at the family physician. A few years ago, the New York City Commissioner of Health read a paper before the Medical Society of the State of New York on "The Private Physician and the Department of Health"⁵ insinuating that the family physicians were inefficient; and yet, by his own statistics⁵ of the examination of school children, the family physicians found a higher percentage of deviation from the normal—except in eye and teeth cases, in which cases specialists were employed by the Department of Health—than did the official examiners of his own medical household.

The first speaker questioned whether the general practitioner could afford to give the adequate amount of time to properly examine the patient for the amount charged him. Inasmuch as the general practitioner always has been able to give the proper amount of time for the thorough examination of his patients and his overhead expenses will still continue, will the taking of his patients from him and treating them at a "pay clinic" at "cut rates" tend to increase or decrease his ability to give his services at the present rate and still be able to earn enough to pay his rent, his overhead expenses, and to support and edu-

cate his family? How about the medical college behind and responsible for the "pay clinics" competing with its own graduates?

Have any bodies of the medical profession taken a stand in regard to "pay clinics"? The Board of Trustees of the American Medical Association met at Chicago, November 10th-12th, 1921, and among other things it arrived at the following conclusions regarding "pay clinics":

"The principles deemed basic are: (1) That the patients should be received by the clinic only when sent by the family physician; (2) so far as possible the patient should be returned to the family physician with written information and suggestions; (3) that the fee charged by such clinic should not be less than that usually charged in general practice, so that, as far as possible, competition of the clinic with the general practitioner should not occur, and the chief consideration should be the public and the medical profession."⁶

On March 23rd, 1923, the Audubon Medical Society adopted the following: "That the Audubon Medical Society considers it unethical for any physician to send a patient to the —* Pay Clinic or to any similar type of clinic and that the secretary be instructed to send a copy of this resolution to the —* Pay Clinic."⁹

An editorial in the *Journal of the American Medical Association* states, among other things that:

" . . . The real function of the diagnostic clinic is to handle those patients in whom the examination and diagnosis require the use of special apparatus not possessed by the average physician, or when the joint examination of several specialists is essential. . . . They should receive no patients able to pay a fee unless the patients are referred by the family physician—if they have one—or are received with his knowledge and approval; and to prevent the appearance of competition, the fee charged by the clinic should be no less than that charged for like service by the family physician. . . . It must be remembered that the family physician, after all, is the most important factor; it is through his intimate contact and personal acquaintance with the patient that sound advice and proper treatment can be secured for the great majority of sick people."⁷

Now, what are the facts in the conduction of the . . . * pay clinic as compared with the foregoing?

"\$1.00 for each visit for examination and treatment."¹¹

At the end of the first year:

" . . . Over 22,000 patients were admitted, . . ."¹¹
 ". . . the Consultation Clinic has in the last sixteen months served 2,067 patients referred by 1,155 physicians."¹⁸

Regarding referred patients:

"For this service, with consultation of specialists and blood and urine tests, the fee is \$10.00." "Persons who do not complain of illness but who wish to secure advice. . . . The examining physician personally will give instruction and advice. The fee for this service is \$5.00."¹¹

As to the direct and indirect advertising by the . . . * Pay Clinic, why is it ethical for the pay clinic to directly advertise to the public and not ethical for the private physician to do so?

One great danger of the project is that it is the thin end of an entering wedge for paternalism and socialism. Has not this country had

enough of paternalism when, under the conditions obtaining during the World War, it became necessary for the Federal Government to take over the railroads, telegraphs, and telephones? Do we want any more paternalism than we can possibly avoid? Do we want our food, medical service, clothing, exercise, ideas, religion, and everything else supervised and administered by a super-authority? Has such a scheme been a howling success in other countries? Are pay clinics necessary? Do they fill a want which has not already been cared for? Is not every general practitioner's office a pay clinic and a health center? Diagnostic clinics are on the wane, some have failed financially and have been abandoned. Does the State need others? Ninety per cent to 95 per cent of medical practice is of such a nature that it can as well be carried out in the general physician's office with the instruments and apparatus in his possession as it can be in the pay clinics; and the 5 per cent to 10 per cent needing further care can be properly attended to either by independent consultants or in the so-called "free clinics" already established and which in this city number 168. The present speaker has never found a general consultant or a consultant specialist who was not perfectly willing to examine and treat a case referred to him for whatever the patient could afford to pay for the service, or for nothing if the patient was deserving, and unable to pay. This is even true of one of the specialists in the . . . * pay clinic now under special consideration; the present speaker has known such a specialist and has referred cases to him for a number of years—long before there ever was a . . . * pay clinic. In such a city as New York these consultants and specialists are always available while the . . . pay clinic is closed on Saturdays, Sundays and holidays.

These facts negative the idea that pay clinics are necessary for people of moderate means and who are supposed to have no other place in which they can receive a proper examination and appropriate and adequate treatment.

Dr. Henry S. Pritchett, Acting President of the Carnegie Corporation has said: "Somebody must sweat blood with gift money if its effect is not to do more harm than good."¹⁰ When he made that statement, did he foresee the establishment of the . . . * Pay Clinic?

* Name of clinic purposely omitted.

REFERENCES

- ¹ Advertising circular, University Medical College Pay Clinic.
- ² U. S. Census, 1920.
- ³ Statistics from the New York State Statistician.
- ⁴ Daily papers.

- ⁵ New York State Journal of Medicine, May, 1916, page 227.
- ⁷ Journal, American Medical Association, November 16th, 1921, page 1741.
- ⁷ Journal, American Medical Association, November 16th, 1921, page 1740.
- ⁸ Circular letter, University Medical College Pay Clinic, May 20th, 1923.
- ⁹ New York Medical Week, April 14th, 1923, page 10.
- ¹⁰ New York Times, April 22nd, 1923, Section 7, page 13.

Deaths

- JUDY, WILLIAM BLAINE, Mount Vernon; Northwestern University, Chicago, 1919; Member State Society; Obstetrician Mt. Vernon Dispensary. Died February 19, 1923.
- CUTTER, HARRIET P., Utica; University of Michigan, 1900; Member State Society; Physician St. Elizabeth Hospital. Died April 23, 1923.
- DRAYTON, HENRY S., Jersey City, New Jersey; Eclectic Medical College, 1877; Fellow American Medical Association; Member State Society. Died April 7, 1923.
- DUFFY, EDWARD F., Yonkers; Bellevue Medical College, 1891; Member State Society; Visiting Surgeon St. Joseph's Hospital. Died April 14, 1923.
- KARASH, MORRIS N., New York City; College of Physicians and Surgeons of New York, 1896; Fellow American Medical Association; Member State Society. Died April 28, 1923.
- KRAUSE, JACOB TRAVERS, New York City; Albany Medical College, 1908; Member State Society. Died March 23, 1923.
- LYONS, D. STANLEY, New York City; College of Physicians and Surgeons of New York, 1876; Member State Society. Died April 24, 1923.
- SMITH, H. EUGENE, Mt. Vernon; New York University, 1883; Fellow American Medical Association; Member State Society. Died April 16, 1923.
- WINFIELD, JAMES McFARLANE, Brooklyn; Bellevue Medical College, 1882; Fellow American Medical Association; American Dermatological Association; Member State Society; New York Dermatological Society; Dermatologist Kings County, Long Island College and St. John's Hospitals; Consulting Dermatologist St. Mary's, Bushwick, Williamsburg, Brooklyn State, Central Islip and Nassau Hospitals. Died April 24, 1923.
- WHITE, DOUGLAS A., Syracuse; College of Physicians and Surgeons of Baltimore, 1897; Member State Society. Died February 1, 1923.

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MUD SLINGERS.

Cloaked in anonymity, covering misleading, untruthful, scurrilous statements, and offering gratuitous insult to the President of the State Society, to the Governor of the State, and to the members of an Advisory Committee appointed by him, the following circular letter appeared in our office on or about April 27:

BULLETIN No. 1.

THE PHYSICIANS' PROTECTIVE ASSOCIATION.

DEAR DOCTOR:

We want to keep you informed on some of the important events that are taking place in Albany. As you probably are aware, Governor Smith appointed a group of fourteen physicians, headed by Dr. Booth, our State President, as his Advisory Committee on medical affairs. This list of physicians was probably handed to the Governor as representing the best opinion of the profession in New York State, but we recognize them as the same crowd of medical politicians and promoters whom we have seen under the banner of Compulsory Health Insurance. They represent the Wendell Phillips-Kopetzky-Towne-Lambert, etc., type.

This committee has made a favorable report on the Bloch Narcotic Bill to the Governor. This bill, from all we can learn, is in effect the Cotillo Bill of three years ago, and is steered through by the same interests and by the same "back stairs" methods. It apparently recreates the conditions which existed under Miss Mulhall in the Narcotic Commission, controlled by Lambert and Harris, and Prentice and Hubbard.

Senator Cotillo publicly denounced his own bill and explained that he had been urged to introduce it upon the false statement that it was backed by medical opinion and authority. The Bloch bill treats the drug habit as a police rather than a medical question, and "virtually rescinds—for the purpose of enforcing control of habit-forming drugs—the statutes of privileged communication between the physician and his patient."

Such measures brought before the Legislature year after year would shackle the family physician and drive the rich addicts to the sanitariums; poor patients to street peddlers, to unimaginable tortures or to death.

This group have used the Hearst newspapers to spread their propaganda and by ballyhoo methods have attempted to jam through this bill. Naturally they are working for their own interests. The real and potential effects of the bill will be most vicious and enslaving to the medical profession and harmful to the public and the honestly addicted.

Are you in favor of this situation being controlled by the Towne-Lambert-Wendell Phillips-Kopetzky-Copeland-Hubbard-Simon-Mulhall group and the boosting of private sanitariums, or do you believe the addict should be treated as a patient, and the family physician be unrestricted by red tape so that he can care for his patient.

Call up or write your Assemblyman at once. Remember that this group is in power in the State Society. Demand through your County Society that your delegates vote against any of their activities.

THE PHYSICIANS' PROTECTIVE ASSOCIATION.

500 Electric Building, Buffalo, N. Y.

On February 26, Governor Smith, exhibiting rare wisdom and an intelligent interest in Public Health problems, made history by inviting into conference with him, representatives from the medical profession of every section of the State of New York. Two hundred physicians,

including the Deans and other representatives of all of the Medical Colleges, responded to his call, and discussed, among other topics, Rural Health Facilities, Control of Narcotics, Medical Research, Educational Standards, and Medical Practice Laws.

At the close of the conference, the Governor named a committee consisting of Drs. Orrin S. Wightman, Hermann M. Biggs, James N. Van der Veer and S. J. Kopetzky, which he asked to advise him in the appointment of a larger Advisory Committee to more thoroughly study the topics presented at the conference and report to him their conclusions.

The committee which was recommended and appointed by the Governor consisted of Dr. Arthur W. Booth, Elmira, Chairman; Dr. James N. Vander Veer, Albany; Dr. Grover Wende, Buffalo; Dr. J. Richard Kevin, Brooklyn; Dr. Joseph S. Thomas, Queens; Drs. Orrin S. Wightman, Wendell C. Phillips, E. Livingston Hunt, Walter L. Niles, Daniel S. Dougherty, Frederic E. Sondern, Samuel J. Kopetzky, New York; Dr. Hermann Biggs, State Commissioner of Health; Dr. William D. Cutter, State Department of Education; Dr. Jacob Diner, of the Pharmaceutical Association, and Dr. Carleton Simon, Deputy Police Commissioner of New York City.

Although the conference was treated editorially and an abstract of the Committee's report was published in the April JOURNAL, in order to refresh our readers' minds, we print in full in this issue, the Report of the Advisory Committee, followed by the Governor's Message to the Legislature of April 11.

In our opinion this committee does represent the leadership of medical thought in this State. The Chairman is the President of the State Society, chosen by the delegated representatives of more than ten thousand physicians. Three other members are former presidents, one is also a Trustee of the American Medical Association. The others are the State Health Commissioner, the Secretary of the State Society, the Chairman of the Legislative Committee, and officers of County Societies or representatives of State or City Departments. These qualifications in no way minimize their value as experienced, constructive thinkers earnestly seeking the best interests not only of all physicians, but of all of the people of the State.

Their report shows careful consideration of all of the conference problems and justifies the Governor's judgment in his appointments.

Only one member of the Committee, Dr. Carleton Simon, seems to be actively and acutely interested in the Narcotic problem which seems to cause so much suffering to the writers of the anonymous circular, and it is his daily business to try in every way to find a solution of this menace to society.

Legislative deadlock has prevented the passage of the Narcotic Bill and other legislation affecting our profession, but the problems are always with us, and we hope that the Governor will not be discouraged, but will try again and if possible continue the same Advisory Committee with no change except possibly some additions to its personnel.

The narcotic situation must be definitely improved. While ambulatory treatment of the real addict seems to have failed, physicians must not be hampered in the legitimate use of narcotics. Appropriate legislation should be enacted permitting the therapeutic use of alcoholic liquors with the same freedom as any other drugs, and unremitting effort must be maintained to put upon the statute books a strong Medical Practice Act.

It is difficult to understand the mental obliquity of those who perennially attack and vilify the elected officers who represent them. Destructive criticism is the food upon which they grow thinner and poorer and more miserable day by day. Their jaundiced eyes see only one primary color. No optimistic rainbow illumines their horizon. As mud is their weapon, they smear themselves with it and eventually disappear beneath its depths.

Let us discredit their pessimism, and at the coming Annual Meeting let us appreciate and applaud the fact that under the able leadership of Dr. Arthur W. Booth the Medical Society of the State of New York has attained a status in public affairs never before enjoyed. It has come to be recognized as a strong constructive and influential force in health legislation and its work as co-laborer with a great and envisioned Governor, has paved the way for progress and illumined the prospects of organized medicine.

N. B. V. E.

ANNUAL DINNER.

Wednesday, May 23, at the Waldorf.

The Chairman of the Committee of Arrangements, Dr. J. Bentley Squier, announces a dinner at the Waldorf at 8 P. M. on Wednesday, May 23, and will be very glad if every member of the Society will bring his wife and daughters with him on this occasion.

The Waldorf is famous for the excellence of its cuisine. The Committee has developed a fine post prandial entertainment and every one of us should reserve the evening and secure his table as early as possible.

This meeting will be distinguished by unusual opportunities for cementing old friendships and making new ones at dinners and luncheons. The Delegates will dine together at the Columbia University Club on Monday evening, the Women's Medical Society dines at the McAlpin the same

evening, and Dr. J. Bentley Squier entertains at luncheon for the President and Section Officers on Tuesday at the Metropolitan Club.

Every member of the Society should make every possible effort to attend this meeting and keep himself young and freshened by social contact with his fellows and his mental processes stimulated by the leaders in medical study at the Section meetings.

N. B. V. E.

THE MENACE OF MENTAL DEFECTIVES.

In 1917, surveys made by competent people for the Committee on Mental Hygiene of the State Charities Aid Association resulted in the revelation of the following proportion of feeble-minded to general population in various localities: Porter County, Indiana, 1 to 136; New Castle County, Delaware, 1 to 262; Nassau County, New York, 1 to 183. Applied to New York State, these ratios would suggest the existence of from 37,000 to 71,000 feeble-minded persons in the Commonwealth.

The following estimates of the number of feeble-minded in New York State were made by the authorities named; H. H. Goddard, E. R. Johnstone and W. E. Fernald, 39,000; New York State investigating committee, 40,000; Charles H. Strong, investigating for New York charities, 33,000.

Six years later, in 1923, we find 6,819 feeble-minded under custodial care in the New York State institutions, and the State Commission on Mental Defectives estimates at least 50,000 mental defectives in the State of whom at least 10,000 need institutional care.

The Superintendent of Randall's Island House of Refuge, New York City, reported to the State investigating committee: "Few of the mentally deficient (the high grade even more than low grade presenting the real problem of the feeble-minded in society) should ever be permitted to return to their homes and allowed to mingle on equal terms with the world at large." Lack of institutional capacity prevented the execution of the policy suggested.

Surveys show that there are about 25,000 mentally defective children in a million school population in New York City and that the same proportion existed throughout the State (Sanger Brown, 2nd, M.D.).

Several years ago the writer ascertained that, while the foreign born population of the State was about 36 per cent., the foreign born population of the State hospitals for the insane was over 47 per cent. The difference between these

figures represented the proportion of destitute insane immigrants improperly and illegally landed in this State, to remain in our State hospitals for an average of twelve years, as a burden on our tax payers, using funds much needed by our own people.

The provisions of the Federal Immigration Law were so drawn as to exclude alien insane or mentally defective and to deport them to their home countries. This is absolutely necessary if we are to prevent the watering of the blood of our people.

The number of children born to feeble-minded parents, in or out of wedlock, is very large; and almost all of their progeny, for generations, is feeble-minded, and therefore is in the end dependent. A high percentage of young people found in Children's Courts is mentally defective. Many defectives are found in orphanages, Children's Homes, State Reformatories, and institutions for delinquent and destitute children; also in prisons and penitentiaries. The occurrence of prostitution and venereal diseases in women is frequently coexistent with mental defect. (Sanger Brown, 2nd, M.D.).

In view of these alarming conditions it is simply astounding to read of the efforts recently made by misguided people to keep in this country one Sammy Goldman, a mentally defective alien, illegally landed and inadmissible. The philanthropic people say he is learning and improving. But the Immigration Law says he is inadmissible and deportable. They say he likes it here and wants to stay. But the Law says he is inadmissible. They say he has friends here who are interested in him and will defray his expenses. But the Law says he is inadmissible. An impassioned orator in the Legislature brought tears to the eyes of his auditors by reciting the terrible plight of Sammy, condemned to return alone to Russia, to the danger of the knout. The facts are that his mother stood ready to return with him, and that since he came from Rumania he would be deported thither, and the dramatic picture of the knout lost its apparent pertinency.

If Sammy Goldman is to be accepted and admitted, why not repeal the restrictive provisions of the Immigration Law, and open our ports to a thousand or five thousand mental defects, thus fatuously inviting well-known peril?

No. Let those who know and comprehend the facts, with the help of wise legislators, decide the matter; and let sympathetic, generous, affectionate America be protected from itself.

A. W. F.

AN EXACERBATION OF SPIRITUALISM.

Spiritualism is endemic, with occasional exacerbations from reinfection. The distemper has been observed in this country, larvated or flourishing, since the three Fox sisters, of Hydesville, N. Y. became famous subsequently to 1848, through their "spirit rappings" and the moving of large bodies by alleged spiritual means. Following a wave of excitement over trances and "trance mediums," the prurient mental palates of the credulous were gratified by ladlefuls of a pure culture of trickery, Fox Brand. In 1880, Margaret Fox made a confession of imposture, which she retracted later, perhaps for purposes of advertising.

Daniel Douglas Home, a canny Hielander, returned to Great Britain after a few years' hectic vogue in the United States, having included in his repertoire knocking on walls, sliding furniture about, and the "levitation" of himself in the air. He mystified and partially convinced many people of culture and education, including in this country William Cullen Bryant and Prof. Wells of Harvard, and in England Dr. Lockhart Robertson, Dr. Robert Chambers, Sir William Crookes, Robert Browning and Elizabeth Barrett Browning. Robert Browning, however, disbelieved, while the others testified that they detected no trickery.

About twenty-five years ago, a well-known, highly respected and able lawyer, Luther R. Marsh, was completely victimized by a confidence woman, sharper and accomplished "vamp," who secured his confidence in her mediumship, and in her ability to order about divers and sundry spirits, and secure their magical aid in her schemes. She coaxed Marsh to believe that the spirits, dominated by her, executed portraits in oil of his deceased relatives, always on the condition that he sat on one side of a tall screen, while she and her spirit pals occupied the other side. As the hours passed by, she emerged from time to time, exhibiting a canvas, dripping with celestial oil, and bearing a speaking likeness of a long dead relation of the fatuous lawyer. Purely incidentally, she secured his loose cash in bank, and also a deed to certain property. The police called her Madame Dis Debar, a noted adventuress.

From London comes the story of an insane girl living near Torquay, who it is reported was relieved last March of a psychosis of seven years' duration by a spiritualist, Robert Lees, of Ilfracombe. During the treatment of her, he told *The Westminster Gazette* he was possessed by two of his spirit friends. One was Chusna, an Egyptian, who was not strong enough. So he enlisted Siameses, an Assyrian spook, and the two together exorcised "the devils" who inhabited the insane Miss Petherbridge. The young woman had the presence of mind, during the pro-

ceedings, to "smack Mr. Lees in the face, but afterward was regarded as an ordinary invalid," to quote the report. Her parents and Mr. Lees, none of them competent alienists, regard the cure as permanent.

And so, from time to time, we have witnessed the sad involvement in the fascinating study of spirit phenomena of many people, to their undoing; for there seems to be a degenerative and demoralizing effect to it.

Most of us love to close our eyes and be deceived deliciously by the wiles of a professional magician, and be hoodwinked—for an evening—by his tricks. And we must recall that all these "spirit phenomena," without exception have been duplicated by Heller, Irving Bishop, and others, confessedly tricksters. Yet after the evening is over we return to normalcy and our brains clear without effort.

One believes what one wishes to believe. A constant longing to know what exists beyond our mortal horizon subtends the arc of real knowledge. We crave information regarding "that undiscovered country from whose bourne no traveler returns." We earnestly wish there were a method of conveying messages to the beloved dead, and of receiving tidings from them. Yet what do these spiritualists give us? When they establish alleged *rapport* with the spirit of a prominent deceased person, what do they report as his communication? Something like what he said in life? Something profound? Something worth saying? Something informing? Absolutely not; but some dismal platitude about the weather, or some nauseatingly banal remark about the desirability of fried sweet potatoes, or the like. And they ask us to believe, or at least accept, and suspend judgment; and this to sincere, level-minded, tolerant people with some mental training, eager to perform useful service to humanity!

After a review of the subject, therefore, we are distressed and pained to read of our distinguished colleague, Sir Arthur Conan Doyle, M.D., wandering in the dusky atmosphere in which ectoplasm is alleged to flourish, believing in "spirit photographs," which all of us produced for fun years ago, reporting the visualization of, the late William T. Stead, wearing a spiritual coat, and spiritual collar and cuffs, etc. What can we think when Sir Arthur describes "ectoplasm" as issuing from the mouth of the medium, Willy, "in a long stream," "coiling at the end like a serpent's tongue" (which, by the way does not coil at the end), and the same "ectoplasm" elsewhere rising in a solid, rigid column from a medium's knees and raising a table, and again being reabsorbed and "showing colored tints all over the medium's body"?

To secure a new thrill, or a new topic for

conversation, thousands of jaded people go to hear Sir Arthur lecture, some believing as they believed in Eusapia Paladino till she confessed. Their parents believed in Dis Debar and in her mother, Lola Montez, till both were unmasked. They will all regain mental poise and open their minds to the truth if they will read both sides of the subject as frankly given in the books *Mr. Sludge, the Medium*, by Robert Browning, and *Mrs. Marsden*, by Robert Hichens.

A.W.F.

CHIROPRACTIC CHEAP AND EASY.

Continued earnest efforts are being made by a "School of Chiropractic" in Chicago, calling itself a University, and offering "Chiropractic instruction and a recognized diploma through home study—the only institution in the country which is conducting a correspondence course," to quote from its literature sent through the U. S. mails.

The alluring story is told in a circular of one Ross, who reports he has twenty-three to thirty patients a day in Boston and Lynn whom he charges \$3.00 each. Presto! "An income of \$23,400 a year," says the circular. A further incentive is found in the report of one Kameron, who writes, "99 per cent of my patients are cured by me after other chiropractors have failed." How come? Not a generally good ad. for the chiropractic system, this. The special lure lies in the effort to enroll and start the home study course on payment of \$1.00, the balance of the \$145.00 amortized in monthly payments. Diplomas, lithographs, "original compendigraphs" and what not are offered free after enrollment.

Be quick, for this is another one of the "last chances" offered frequently the past few years. "Get into the big money making class," says the circular. The absurd claim is made again, that chiropractic in 26 years has accomplished more than medical science in 2,600 years. This fraudulent claim alone should suffice to close the U. S. mails to these people.

The easy way, the short road, the sure income easily suggest contemptible pretense in the whole matter, to the mind of the intelligent man, to whom the circulars were sent, which have been quoted, and who has been circularized repeatedly for a few years, fees stated being reduced with each succeeding offer.

Yet dupes will bite and the jazz cult will go on. How long will people be so infatuated as to believe that they who are not trained in disease or in medical aid are competent to render medical aid in diseased conditions?

A. W. F.

AN OUTRAGEOUS TAX ON PHYSICIANS.

The Act of Congress of December 17, 1914, known as "The Harrison Narcotic Law," as amended by the Revenue Act of 1918, approved February 24, 1919, provides in part as follows: "Section 1. That on or before July 1 of each year, every person who imports, manufactures, produces, or gives away opium or coca leaves, or any compound, manufacture, salt, derivative or preparation thereof shall register with the collector of internal revenue of the district, his name or style, place of business and place or places where such business is to be carried on, and pay the special taxes hereinafter provided; physicians, dentists, veterinary surgeons, and other practitioners lawfully entitled to distribute, dispense, give away, or administer any of the aforesaid drugs to patients upon whom they, in the course of their professional practice are in attendance, shall pay \$3 per annum. . . ."

Under this law for several years there has been levied on physicians and collected by the internal revenue department of the Federal Government, the special tax mentioned in the Act, amounting to \$3.00 yearly, taken from each practitioner "dispensing opium, &c."

This tax probably aggregates over \$200,000 annually. The registration of the physicians, who submit to this exaction furnishes the Government with a list of those who obey the law, and it is probable that the money wrung from them suffices to pay the salaries and wages of the horde of assistants to the collector, inspectors and clerks for whom places are thus found, and also furnishes sufficient additional funds to prosecute officers.

The whole scheme is iniquitous and abominable, and physicians should submit to it no longer. This taxation does not benefit physicians. If it is for the benefit of the people, if it is to protect them from the dangers of drug addiction, let them all be taxed for it. We might as well tax garage keepers to secure funds for fire protection, or clergymen to secure funds for police protection. If the public at large is to receive benefit, let the public be taxed, and let the general budget cover the needed amount, each citizen paying his little share. Legislation against a law-abiding class for the general weal is unequitable and vicious.

If the idea is to secure a separate and perhaps more accurate registration of the law-abiding physicians, and if the end can be reached only by a fee, let the fee be made half a dollar annually, and let salaries be paid out of the general budget, and not be made a graft upon the doctor's pocket. Of course, the Directory of Physicians, published by the American Medical Association can be purchased for a few dollars. What more is needed? But, of course, to use that volume

would not furnish government positions for a host of place hunters and barnacles.

In the 67th Congress, House of Representatives Bill 14328 was introduced by the Hon. John Joseph Kindred, M.D., of the 2nd District of New York. This bill provided for a reduction of the \$3 special annual tax upon physicians, but was introduced too late in the session for a hearing before the Ways and Means Committee of the House, in whose committee it died.

Dr. Kindred will arrange for a hearing immediately after reintroducing his bill at the next session of Congress. It is confidently hoped that a representative body of physicians will be present at the expected hearing, to convince the committee of the iniquitous character of the tax. Why should it not be abolished? Memorialize your Congressman early next December and secure the repeal of that part of the Harrison Narcotic Law that applies to physicians!

A. W. F.

GOVERNOR SMITH'S MESSAGE TO THE LEGISLATURE.

April 11, 1923.

TO THE LEGISLATURE:

Actively relating public health to the welfare of the State is a development of recent years. Prior to 1913 the State was without a field force for the enforcement of a sanitary code and public health was largely a local function, the State doing little more than gathering statistics and supplying information to localities. If we can uphold the State Department of Health in meeting its problems with vision and foresight, we will place this State in the forefront of intelligent public health service to its citizenship.

During my last administration, the Reconstruction Commission made an exhaustive study of public health problems, as a result of which many constructive recommendations were carried out with the co-operation of the Legislature and the State Department of Health. One important phase of public health which has forced itself increasingly on our attention, and is still unsolved, because the difficulties in meeting it offer so many complications, is the scarcity of medical service in rural communities.

Sickness is no respecter of geographical location, and tragic conditions prevail in the more sparsely settled areas of the State where, especially in the winter months, it is difficult for physicians to go. Pneumonia, influenza, maternity, contagious diseases, take their toll under pitiful circumstances in farm houses, while the city dweller, however poor or unfortunate, has hospitals and nursing services at hand, and never need experience the suffering caused by the lack of adequate medical and nursing care that now falls to the lot of some parts of our farm population. Personal poverty is not the cause. Inaccessibility in winter months—the physician asked to see three or four patients, with widely scattered areas between each home, meaning long drives over roads almost impassable with snow and ice—and a dwindling farm population insufficient to support a physician, are the generally prevailing causes.

Statistics gathered by the State Department of Health would indicate that the number of physicians is decreasing in rural districts as is also the population, but the two are not proportionate, and it is admitted on all sides that it is necessary to find some method for securing and retaining adequate medical service.

This situation has forced itself on our attention year after year. It being a medical problem, it seemed to me that the physicians of the State should be called in to assist me to find a solution, especially as they have objected to solutions heretofore suggested, and I, therefore, asked them to confer with me in February on this and several other medical subjects.

The conference was attended by the leading medical men of the State and a committee was appointed to report to me their suggestions on rural health and other problems discussed. These men, in their report to me, say that "It is undoubtedly true that in a certain small number of outlying rural communities in this State there is a lack of physicians, particularly in the winter time."

They also state that "there is no question in the minds of this committee but that certain communities and districts up-State are now lacking in adequate medical care; and the physicians of the State are as anxious as the State Department of Health to remedy conditions."

Thus all who have studied the situation, physicians, State Department of Health and social agencies, are agreed that help is needed. But there are differences of opinion as to the extent of the need and the remedies to be applied. One thing appears certain. The localities should themselves originate any movement to meet the situation and do all that they can toward carrying it out.

Small community hospitals to serve rural districts where a physician would have the advantages of being able to take care of several patients at a time, and thus avoid the long rides in the winter time over difficult roads to scattered homes, are looked upon as a helpful solution of the need. Such small hospitals would provide laboratory and other facilities that would stimulate the interest of the physician and assist in attracting him to remain in such communities.

Many counties and other smaller communities are going forward with the establishment of such institutions and at the conference some of these were reported. I never believe in asking the State to do what a locality should do of its own accord, but it is sometimes necessary to apply a stimulus to secure local activity. It seems to me that the rural health problem will best be met by some such policy. Extending State aid indiscriminately to solve medical problems would be as impractical as it would be unwise.

I would, therefore, suggest that you enact legislation providing that when the county supervisors of counties having no first or second class cities, undertake public health and make an appropriation therefor, either for small community hospitals in rural districts or public health activities of any other kind, the State shall appropriate a similar amount, dollar for dollar. The work to be done must conform to the standards of the State Department of Health, and any money supplied to the county must be upon certification of the State commissioner of Health that the work is necessary and is satisfactorily done and conforms to the standards of the department. This, of course, would be only the beginning and could in time be extended to other communities as experience would show the necessity for so doing.

Such a provision would guarantee permanence to any health project that the county undertakes and would be initiated and approved by local medical practitioners themselves. On the other hand, it would assure in time provision for the needed medical service in rural districts which cannot afford to carry the costs themselves and would thus be assisted by the whole county and also by the State. No already existing project would be eligible for such aid, as the purpose is solely to stimulate new undertakings applied to rural conditions in the field of public health.

In order to safeguard and also to stimulate such a program, I shall shortly act upon another suggestion made to me by the Physicians' Conference and appoint a small committee composed of members of the Medical Society of the State of New York, the State Grange,

several members of the Legislature and representatives of the State Department of Health, and request them to examine the available information carefully and to proceed further to study and investigate rural health conditions and to assist these communities most needing to carry on this type of public health work in formulating their plans to get the work under way through the county supervisors.

Agitating the community and increasingly forcing itself upon our attention is the narcotic drug evil. I am convinced that part of the agitation on this subject is due to the sensationalism of certain types of newspapers and magazines. Lurid, sensational articles intended to inflame the imagination of young people and to make the whole subject mysteriously and morbidly attractive have led to the prevalence of a belief that the use of narcotic drugs is much more general than it really is.

From figures which have been submitted to me it is gratifying to note that the control of the evil in New York City indicates that so far as the criminal addict is concerned the average age has increased from twenty-two years to about twenty-nine years, which would seem to indicate that during the period of the past six years, when there has been some form of control, the younger group is not so apparent among criminal addicts. The percentage table also shows clearly that only about 11 per cent of the criminal addicts are females.

At the same medical conference the subject was discussed, and based particularly on recommendations by the committee appointed at that conference and by other groups called in to advise me, I am transmitting to you legislation which I think will meet the situation as it exists at the present time, and enable us to go forward gradually to the acquisition of a body of information concerning the subject as it affects this State. We will then be able to apply more constructive remedies as the situation clarifies.

Naturally our efforts should be toward prevention of the spread of drug addiction and the legislation which I am submitting to you is aimed at this. It provides for the enactment into State law of the provisions of the Federal law, known as the Harrison Drug Act, and permits acceptance of the Federal order slips and blanks as of record in the State, requiring a third blank to be filed, so that we will be able to build up our own body of statistics. From these statistics it will be possible in a year or two to know what further steps, if any, are necessary for the control of the addict who is not a criminal.

Police authorities will be assisted in their prosecution of drug peddlers by placing at their disposal an analyst whose function it will be to analyze drugs confiscated and to testify in court concerning them. The Insanity Law is to be amended so as to place under the supervision of the State Hospital Commission private institutions for drug addicts. The State Hospital Commission is also given the right to license and inspect such institutions. This is a logical expansion of their functions.

Reputable private physicians are not restricted by the provisions of this Act. It contains provision for the commitment by a magistrate of persons applying voluntarily to a magistrate or judge for such commitment for treatment.

In the main the police authorities will administer the act. The triplicates of the order blanks on which the drugs are bought and sold are to be filed with the State Police for the purpose of having a centralized record. By enacting the provisions of the Federal drug control law into the statutes of the State and building up a volume of statistics, we will not be creating any new administrative department, and we will strengthen our control of the criminal and come closer to a solution of the preventive phases of this problem.

I hope that you will proceed to early enactment of

this much needed legislation so that we can have a constructive program under way which will finally lead to a rational solution and control of this dangerous and evil traffic.

You have now before you for consideration by your Honorable Body several bills affecting public health. Some of these are measures forming part of the consolidation program and would give to the Health Department control of several scattered agencies dealing with health matters.

There is also a proposal to extend the system of State laboratories. May I add that if any measures come before you affecting the Medical Practice Act, I will be glad to arrange a conference with the committee of physicians who so ably assisted me in the formulation of the present program. Their advice and assistance would prove helpful and they, in the last analysis, are chiefly affected by any policy which we may adopt.

I trust that all of these measures will have your favorable action. I have emphasized in this message the two outstanding matters requiring constructive action at the present time.

We should not have to face another winter with conditions as they were this year, endangering the lives of whole communities, when progressive action on our part could avoid it. Certainly there can be no difference of opinion either as to the need to go forward with a program for control of the spread of the narcotic drug evil.

(Signed) ALFRED E. SMITH.

REPORT OF THE GOVERNOR'S MEDICAL ADVISORY COMMITTEE.

The Medical Advisory Committee appointed by Governor Smith has completed its recommendations. We are publishing below a complete copy of their report.

REPORT OF THE COMMITTEE APPOINTED BY HIS EXCELLENCY, THE GOVERNOR OF THE STATE OF NEW YORK, TO CONSIDER CERTAIN HEALTH PROBLEMS IN THIS STATE.

His Excellency, Alfred E. Smith, Governor of the State of New York, having appointed a Committee on February 26, 1923, to investigate certain health problems in this State and make a report thereon, we, the Committee, submit herewith our findings. The Committee was divided into subcommittees for a more thorough study of the various subjects before it, and, after a formal meeting and discussion, arrived at the following conclusions and recommendations.

THE RURAL HEALTH PROBLEM.

At the conference held in Albany on February 26, 1923, the State Health Department presented a series of statistics on the rural health problem in this state. This Committee, after a comprehensive survey of the question, does not find itself in agreement with the interpretation of the statistics made by the Department of Health.

It is undoubtedly true that, in a certain small number of outlying rural communities in this State, there is a lack of physicians, particularly in the winter time; but it is doubtful in the extreme if State subsidies would correct the situation in those communities. The number of physicians in a given county is governed by the laws of economics; and any decrease in this number is generally explained by lessened population, lessened morbidity and mortality and the individual physician's ability to care for a greater number of patients than formerly, due to the automobile, the telephone and the increased number of good roads—which latter, moreover, are kept open to a greater extent during the winter months now than in the past. It must not be

forgotten, too, that it requires more patients to support a doctor today than it did formerly.

From these facts, it is evident that the disproportion between the number of physicians in rural centers now and in the past is not as great as a superficial survey of the statistics would seem to indicate. Certainly there is no indication for the adoption of a state subsidy program. In Pennsylvania, where the subsidy plan has been in operation, it has failed completely and the monetary aid granted to the various counties has degenerated into a veritable political "pork barrel."

There is another aspect to the rural health problem in the question of hospital, nursing and laboratory facilities in country communities. There is no question that for the benefit of public health it is absolutely essential that these facilities exist in number and position to be promptly available in every instance when needed. The list of new hospitals and the contemplated ones mentioned at the conference on February 26 is an indication not only of this need, but also of the fact that it is being met locally, to some extent at least. In the interest of public health, therefore, the State Department of Health should inaugurate an extensive educational campaign to urge the local county authorities to meet their own needs. Experience teaches that local control and local support produce the best results in this field; and should isolated instances be found where, for one reason or another, this is not possible, then and only then should subsidy and central control be provided.

There is no question in the minds of this Committee but that certain communities and districts up-State are now lacking in adequate medical care; and the physicians of the State are as anxious as the State Board of Health to remedy conditions. However, the data collected from the Committee on Medical Economics of the Medical Society of the State of New York varies to such a degree from that submitted by the State Board of Health that, after careful consideration of the problem, we recommend that Your Excellency create a small committee of investigation, the personnel to be drawn partly from the State Board of Health and partly from the membership of the Medical Society of the State of New York. Obviously, the physicians up-State are more intimately acquainted with local conditions and could therefore serve best on such a committee.

MEDICAL RESEARCH.

The methods employed in medical research have met with a great deal of active opposition from a small but aggressive minority within the State. Despite the fact that investigation in the great scientific institutes of the day has resulted in benefits of untold value to the human race, this small group has consistently sought to hamper scientific research by restrictive legislation of various kinds.

It is the opinion of this Committee that the laws surrounding the conduct of laboratories for research and investigation are adequate, from the point of view of humanitarianism as well as regulation, and there is no need for any modification of, or addition to, the existing statutes.

MEDICAL EDUCATION.

During the past twenty years the science of medicine has made tremendous progress in America, and today we lead the world in medical research and the prevention and cure of disease. This has been accomplished by adopting and maintaining high standards of medical education and practice; and in this movement the State of New York has been foremost. A candidate for a license to practice medicine must have completed four years of study in an approved medical college, and as most of the medical colleges require at least two years of specified college work for admission, the candidate has usually studied the medical sciences for at least six years. In addition, practically all graduates spend one or more years in a hospital before assuming

the responsibilities imposed upon them with respect to human life and public health.

Despite these high requirements, there are sufficient physicians in the United States, though in many parts of the country the distribution of them is not satisfactory. In order that progress in medical science may be continued, it is vital that our educational standards be rigidly maintained. Any person of good moral character possessing the minimum educational requirements mentioned above, and successfully passing the examinations given by the Board of Regents, may under the existing laws qualify for the practice of the healing art in this state by whatever method, school or cult he may elect.

The Committee therefore recommend:

1. That the present educational requirements as they relate to the practice of the healing art be maintained.
2. That the present laws being necessary and satisfactory to enforce a high standard of service, they be in no way modified.
3. That no exceptions, exemptions or provisions in any respect invalidating the present laws be enacted. The medical profession is not opposed to the practice of the healing art by any school, cult or method, even though in opposition to its own teachings, provided that these would-be practitioners have the same preliminary training as the doctors of medicine. Under no circumstances, however, in the legalization of any new school of thought, should anyone be permitted to practice the healing art who has not the same professional education as the medical doctor and the knowledge of the basic sciences which is required in our present minimum standards as outlined above.

THE MEDICAL PRACTICE ACT.

With the growing popularity of almost countless healing cults, with their widespread publicity and broadcast promises of radical and miraculous cures, with their sometimes sincere followers and advocates all coupled with an almost complete absence of prosecution and a consequent immunity to the faddist cults, there has arisen in the lay mind by common consent a certain prescriptive respectability in favor of these cults, and a feeling that *prosecutions* of these violators of our public health law are now little more than *persecutions* of advanced scientists, fostered by a medical profession which is jealous of its time-worn reputation and alarmed by the encroachments on its income-producing field.

It seems incontrovertible, however, that whatever may be the merits of these cults, individually or collectively, none of them should be above the law. Whatever our public health laws are to be, they must be enforced against all who violate them, not only because of the direct benefits to the public health, but because of the broader aspect of the situation in connection with respect for the law generally. Even if cults are to be licensed—and to this, under proper regulation, we are not opposed—the public, for whose protection the laws are enacted, is entitled to know that only such individuals as are qualified under the law by education and training shall be entrusted with their health and lives, and that all others, whoever they may be and whatever theories they may hold, may not prey upon their credulity and ignorance of the healing art.

There is now no officer, department or bureau of the State charged specifically with the enforcement of laws safeguarding public health. Surely no matter is nearer the State than the health of its people. Surely no matter is of greater importance than the proper enforcement of laws devised to protect the health of the people. Yet, despite this, it is a matter of common knowledge that throughout the State, in every part, men and even women are openly and notoriously engaged in the practice of medicine as defined in the Public Law without being licensed to do so. Such a condition could not exist were the law thoroughly enforced.

It is submitted that the principal reason behind the

apparent lack of efficient and effective enforcement of the Medical Practice Act lies in the fact that there is no State organization whose function it is to enforce the Act. The medical societies are rendered impotent because of the suspicion of selfish interest which is attached to their enforcement activities, and the State does not act.

With these facts in mind, the Committee recommends the enactment of a bill based on the outline we are attaching herewith. The proposed bill is in substance the same as that passed by the Legislature last year and vetoed by Governor Miller, except that the penalties for second and subsequent offenses, because of which the Governor vetoed the act, have been materially reduced, and that the entire matter of enforcement is placed in the control of the Attorney-General's office, to be directly in charge of a Deputy Attorney-General appointed for the purpose. No provision is attempted in our draft with regard to appropriation of funds to cover this work, as it is our opinion that this is a feature which should be carefully considered by the Attorney-General's office and for which special provision should be made by him.

THE NARCOTIC DRUG PROBLEM.

No question which has come before this Committee has been of more importance, or received more serious study than that of narcotic drug addiction and its control. This has been the subject of numerous conferences, and information has been gathered on it from many diverse sources.

Thorough investigation has established the fact that the ambulatory treatment of drug addicts by physicians is worse than useless. Not only does it fail to cure addiction but, in many cases, it is an impetus to its continuation. This has been definitely proved by the fact that, during the period in which the Whitney Narcotic Law was in force in this State, legalizing ambulatory treatment, the amount of drug addiction increased perceptibly, as reported by the Police Department of the City of New York. It is, therefore, the opinion of this Committee that ambulatory treatment of drug addicts should be prohibited by laws, and, for reasons which we will give below, a policy of segregation and confinement adopted in its stead.

Contrary to popular belief, the majority of narcotic habitues are criminals, with criminal records in the courts. In fact, narcoticism is so involved with criminality, that to relax police vigilance over the one is to enhance the other. We believe, therefore, that all drug addicts should undergo institutional confinement, the criminal addict in penal institutions and the non-criminal addict in state-licensed and supervised public or private institutions for this purpose. In this connection, we may say that it is the sense of this Committee that the criminal addict is one who was a criminal prior to his addiction, or who is arrested in some criminal act. When a criminal addict is confined in a penal institution, he should be placed in the section devoted to mental defectives, for there is almost always some mental defect or inferiority associated with addiction, and the medical man is best qualified to direct its treatment.

In regard to the illegal vender of narcotic and habit-forming drugs, who is such a vicious factor in the addiction situation, the Committee recommends that the illicit possession, sale or distribution of such drugs be made a misdemeanor under the law.

In addition to the recommendations outlined above, the Committee further suggests that the essential provisions of the Harrison Narcotic Act be embodied in a State law similar to the narcotic amendment to the New York City Sanitary Code. However, in view of

the fact that all the evidence obtained from all sources tends to prove that the practicing physician is responsible for less than two per cent of all addiction, the provisions for registration and reduplication of blanks should be omitted from the State legislation and the profession allowed to prescribe or administer narcotics in ordinary practice without restriction. Certainly in the treatment of chronic diseases which are tending towards a fatal termination and in the relief of post-operative pain, the physician should be permitted to prescribe opium and its derivatives according to his judgment, for humanitarian reasons which are obvious.

In the hope of being of some help in finding a solution to one of the great social problems of the day, the Committee is submitting herewith the outline of a bill embodying its recommendations in regard to the drug question. As this Committee is composed of medical men and the services of counsel were not available, we suggest that the draft we are submitting be placed in the hands of competent authorities for adaptation in accordance with the regulations and statutes of the State of New York.

Respectfully submitted,

ARTHUR W. BOOTH,	JOSEPH S. THOMAS,
EDWARD LIVINGSTON HUNT,	WENDELL C. PHILLIPS,
DANIEL S. DOUGHERTY,	ORRIN S. WIGHTMAN,
J. RICHARD KEVIN,	FREDERIC E. SONDERN,
JACOB DINER,	JAMES N. VANDER VEER,
GROVER W. WENDE,	SAMUEL J. KOPETZKY,
WALTER L. NILES,	WILLIAM D. CUTTER,
	CARLETON SIMON.

ASSOCIATED OUT-PATIENT CLINICS OF THE CITY OF NEW YORK.

The Associated Out-Patient Clinics of the City of New York has reorganized a Section on Medicine, with the following officers:

Leander H. Shearer, M.D., Chairman; D. P. Barr, M.D., Vice-Chairman; Michael M. Davis, Jr., Executive Secretary. Executive Committee: George Baehr, M.D., Arthur Neergaard, M.D., Harold E. B. Pardee, M.D., William J. Pulley, M.D., and the officers. Dr. Alexander Lambert, Vice-President, presided at the meeting. Fifty-one different institutions maintaining medical clinics are represented in the section as a whole.

Dr. Albert R. Lamb, a member of the general Executive Committee of the Association, discussed a number of problems which the section might take up for consideration. One of the most important of these is the closer relationship between the medical service in the out-patient department and the service in the wards; also in the in- and out-patient record systems. The section must also deal with the difficulties in the relations of general medicine to many specialties, including subdivisions of medicine, such as tuberculosis, cardiac, gastroenterology, etc. It is said that at present medical clinics draw only what is left after the specialties "have taken what they want."

Some of the other important problems are: The necessity of limiting the number of patients admitted in accordance with the available staff, in order to promote quality rather than quantity of service; the improvement of laboratory service so that patients may be carefully worked up without being sent to the wards; the promotion of research, using the abundant material provided by the out-patient department; the provision of more non-medical assistance for physicians in the handling of records and management of patients; and of more adequate medical social service.

Correspondence

The Council, at a meeting held in Albany, April 20, 1922, moved, second and carried:

That the Journal be not used in any way suppress any expression of opinion; and that its correspondence columns be open for all proper communications; and that "proper" communications will be deemed those which are not slanderous or libelous in their nature.

April 19, 1923.

The Editor, NEW YORK STATE JOURNAL OF MEDICINE:

Dr. George E. Barnes takes exception to my letter regarding alcohol as a therapeutic agent. He says my writing is not a scientific production. Will the doctor point out the half truths and those which are not true statements? I do not claim to be infallible. If I erred I will gladly admit it. But, he must give facts, not arguments. As a matter of fact we both agree on every point except who is to decide which drug is to be selected in the individual case. Surely the attending physician is the one to be the sole judge what to prescribe and the dose of the drug he uses. To claim that alcohol has no therapeutic value is ridiculous! To ask "if I can give information which will place alcohol on a scientific basis as a remedial agent" needs no answer. Every medical student knows it.

The medical profession was polled by the A. M. A. and through other agencies since restriction on prescribing alcohol as a remedial agent was put on the medical practitioner, and the majority of the doctors gave this verdict, that alcohol is of great value as a therapeutic agent. If Dr. Barnes still maintains "that no case exists in which alcohols are the remedies of intelligent choice," and if the doctor still adheres to his statement "will the medical profession and the people allow antiquated tradition to stand today in place of enlightened science when the health and welfare of the American people and nation are involved," I say again that such arguments are the stock arguments of all the unscientific healers who claim that medical science is antiquated. Dr. Barnes by making such an indictment against the medical profession is accusing the profession not alone of being unscientific, but of being disloyal to the best interest of our country!

I do not see how Dr. Barnes is practicing medicine without using alcohol in some form or other. Every tincture contains alcohol. To compare ethyl alcohol with methyl alcohol is at par with comparing castor oil with croton oil. Dr. Barnes seems to treat diseases, not patients, because he talks away about diseases. He does not say he would like to know in what class of patients alcohol is indicated, he says in what disease alcohol acts as a remedial agent. The doctor says, "Many people interested commercially in alcohol never touch it themselves." Many restaurant and hotel keepers never touch the food they serve. Many doctors never took castor oil themselves, but that does not prove that castor oil is not a cathartic! Even were the therapeutic value of alcohol a debatable question there would be no justification for its discontinuation, for nothing should be neglected that will help ever so little in improving the patient's physical and mental condition.

In conclusion I will say: that not prohibition, with its intolerance against personal freedom; not religious fanatics with their intolerance against freedom of thought; not the Ku Klux with their fanatical cry "Americanism" who are starting a new Spanish Inquisition, will emancipate us from the present uncivilization of certain classes.

"If ever the human race is raised to its highest practicable level, intellectually, morally and physically, the science of medicine will perform that service."—*Descartes.*

Yours for upholding the constitution of the United States for freedom and liberty.

L. W. ZWISOHN, M.D.

249 W. 122nd Street, New York City.

NOTES ON NURSES AND TRAINING SCHOOLS.

The Deaconess Hospital, Buffalo.

Miss Katherine M. Danner, Superintendent of the Hospital, will retire May 15th. Her successor has not been appointed. Mrs. Lucy Branch Cator, R.N., has resigned from the position of Superintendent of Nurses, and will be succeeded by Miss Hicks, who now occupies a similar position in the Homeopathic Hospital in Utica. Miss Marie E. Byron, R.N., Instructor of Nurses, has resigned to accept the position of Assistant Superintendent of Nurses at the Highland Hospital, Rochester.

St. Agnes Hospital, White Plains

This orthopedic hospital for children has also fourteen beds for private patients. It is constructing a new school building for the children and making improvements in the boys' ward. Sister M. Isabella is the superintendent.

Shepard Relief Association Hospital, Montour Falls.

A recently completed "drive" netted \$2,000 for this hospital with eight beds, capacity being ten. Miss Jane A. Sanders is the superintendent under whom are one night and two day nurses. Naturally no training school.

Arnot-Ogden Hospital, Elmira.

Mrs. Hansen, of Buffalo, president of the N. Y. State Nurses' Association, spoke to the Third District of the Association at this hospital on April 10. She refuted the statements of Dr. Thew Wright as advanced in his paper "Higher Education Makes Poorer Nurses."

St. Luke's Home & Hospital, Utica.

Mr. I. William J. McClain, superintendent, reports the installation of a cafeteria in the new Nurses' Home in April, for pupil and official nurses only. Miss Rachel Herbert, a graduate of the Training School in 1892, recently died aged 82. She had much to do with the forming of the nursing policy of the hospital, and was for ten years a resident of the home department.

St. Joseph's Hospital, Elmira.

It is expected that the new annex now in course of erection will be completed July 1. Mr. G. Albert Zimmermann, of New York, the builder of this addition, has constructed a radio apparatus in the building which he gives to the hospital. It is complete, with amplifier and magnavox, and can be used to cover a room or the entire building, or any of the three buildings of the hospital.

Cumberland Street Hospital, Brooklyn.

Now erecting a new building to increase ward capacity. This is to be the main welfare city hospital of Brooklyn. Miss Isabella Burrows is Superintendent of Nurses.

NOTES FROM THE STATE DEPARTMENT OF HEALTH.

ANNUAL CONFERENCE OF HEALTH OFFICERS AND PUBLIC HEALTH NURSES.

The next annual meeting of the New York State Conference of Public Health Officers and Public Health Nurses will be held at Saratoga Springs on June 26, 27, and 28, 1923. The headquarters of the conference will be at the Grand Union Hotel. The program will be announced later.

ACCURATE DOSAGE IN THE SCHICK TEST.

The Division of Laboratories and Research has recently issued a statement pointing out that dependable results cannot be obtained in the Schick test unless the proper toxin dilution is used, the injection is made intradermally and the correct dosage is given. The laboratory considers it essential that 1/10 cc. of diluted toxin—neither more nor less—be injected. This cannot be done unless both the graduations on the syringe and the bleb are watched during the injection. Fortunately, with a little practice, the knack of doing this can readily be acquired. Experience has shown that when the dose is gauged by the bleb alone exactly 1/10 cc. is seldom injected. Such inaccuracies may result in a negative reading for a person actually Schick positive. In this connection Dr. F. W. Sears, one of the State Sanitary Supervisors who has had unusually extended practical experience with the Schick Test gives the following opinion: "With our present solution, I believe the only safe way is to watch both the syringe and the bleb. From my experience, I do not believe that we can get accurate dosage in any other way."

LIST OF TYPHOID CARRIERS.

The Division of Communicable Disease has recently prepared a list of all known typhoid carriers in New York State, exclusive of New York City and the State Hospitals. The list comprises seventy-three persons, and describes the typhoid fever outbreaks for which these carriers are considered to be responsible. Believing that this is perhaps the first record of the kind ever submitted to a public health authority, the Public Health Council at a recent meeting adopted a resolution expressing its appreciation of the efficient work of Dr. Edward S. Godfrey, Director of the Division of Communicable Diseases of the State Department of Health, in the preparation of this report.

DISASTROUS EFFECTS OF LACK OF CO-ORDINATION BETWEEN LOCAL WATER BOARDS AND HEALTH OFFICERS.

An outbreak of approximately one thousand cases of diarrhea was recently brought about in an up-State village by temporarily changing the source of the public water supply to a polluted lake, without taking any precautions to insure the protection of the consumers. The local water board, faced with a shortage in the regular supply, ordered the change without notifying the health officer, who became aware of the situation only nine or ten days later when his suspicions had been aroused by the unusual number of reports of cases of intestinal disease. The health officer immediately notified the State Health Department, and an emergency chlorinating apparatus was installed to disinfect the water supply. The village has since taken steps to insure permanent protection and improvements in connection with its water system. The incident emphasized the serious danger which may arise from lack of co-operation between water boards and local health officers, and accordingly, the Public Health Council at its last meeting drafted an amendment to the State Sanitary Code requiring every local water board immediately to notify the health authorities of any change in the source of the public water supply or of any action which might affect its sanitary quality.

SUSPECTED ENCEPHALITIS.

Dr. F. W. Sears, of Syracuse, Sanitary Supervisor of the Department, has reported a very interesting case of suspected encephalitis which proved on autopsy to be a brain tumor. Dr. Sears had examined this patient before death and had made a diagnosis of cerebral abscess. However, as the newspapers heralded it as another death from lethargic encephalitis, Dr. Sears with the assistance of Dr. Farmer, health officer of Syracuse, was able to secure an autopsy. The case was that of a farmer, age 54, who had not felt well during the winter, suffering from headache at various times. He took to his bed on March 17th, his symptoms being restlessness, moaning in his sleep, swinging his hands, particularly the left one, and considerable headache. On the 24th he lapsed into unconsciousness, from which he could not be aroused for thirty-six hours. On the 27th he was brought to one of the Syracuse hospitals, and when seen by Dr. Sears was semi-conscious, could be aroused with considerable difficulty, his temperature had ranged from 99 to 102, and he had a leucocyte count of 22000. His left side and one side of his face were completely paralyzed, and he swallowed with difficulty. Tumor of the brain was considered, but owing to the fever and leucocytosis, the diagnosis of cerebral abscess was favored.

At the post mortem a tumor the size of a small hen's egg was found in the right hemisphere. Hemorrhages had evidently taken place in it and it had begun to break down, probably accounting for the high leucocyte count.

RABIES.

The recent occurrence of rabies in Cortland County has led the State Department of Health to urge the advantages of vaccinating dogs against this disease, as the most logical and scientific method of eradication and absolute control of a deadly malady which still eludes efforts to control it through quarantine of dogs. The harmlessness to the dogs vaccinated, the moderate cost of vaccination, one treatment only being necessary, should appeal to all as a co-operative measure to stamp out this disease. Should every dog owner comply with the request to have his dog vaccinated each year for a period of two years, there is no doubt but that rabies would cease to exist, and the benefit to humanity and to the canine race would be incalculable.

VACCINATION OF DOGS IN CONNECTICUT.

In this connection the experience of the State of Connecticut during an outbreak of rabies in 1922 is illuminating. When the outbreak appeared to be reaching state-wide proportions, the quarantine method was used, but in addition, the vaccinating of dogs with anti-rabic vaccine was urged, and a dog so vaccinated, after a lapse of ten days after vaccination, was given liberty, insofar as it was not subject to the quarantine regulations. The quarantine ordered that any dog bitten by a rabid dog or animal must be killed unless the anti-rabic serum treatment was given within three days after having been bitten or inoculated, such treatment to be given by a registered veterinarian, who, in turn, reported such treatment to the office of the Commissioner of Domestic Animals, giving all details. The dog so treated was then kept in quarantine for at least twenty-one days, when, if no symptoms appeared at that time, it could be released from quarantine. Since the dog owners learned that rabies vaccine would prevent a dog developing rabies if bitten by a rabid dog, there have been 1,522 dogs vaccinated against rabies in Connecticut. Since this was done, six vaccinated dogs have been bitten by a known rabid dog and none have developed rabies. An interesting incident occurred when a known rabid dog bit two unvaccinated dogs and one vaccinated dog. The two unvaccinated dogs developed rabies and the vaccinated dog did not develop rabies.

PRUNES.

Contributions Invited.

Mrs. Flanigan, who lives about 30 miles from Troy, was the unfortunate possessor of a large varicose ulcer on one of her lower extremities. Though living in this country for years, she had retained the brogue and habits of her mother-country. Two adult daughters graced her household, and these ladies were more modernized than their aged parent. One morning, before going to their work, one of the daughters said to her mother that she would request Doctor X. to call and see what could be done about treating the ulcer. She admonished her mother about being very careful in her speech; especially not to say that she had a sore on her leg, but to say she had an ulcer on her limb.

During the forenoon, the scholarly Doctor X. arrived at Mrs. Flanigan's, and after the usual self-introduction, he asked the good old lady what her trouble might be. To save her soul from perdition, Mrs. F. could not remember the exact words that her daughter had told her to use; but she knew that the word had some relation to a tree.

After a few minutes' hesitation on her part and quizzing by the doctor to help her out, she finally said: "I have, dothor, a sorre on me twig."—*Dr. A. E. H. Cohoes.*

With Colors to Match.

Two South Carolina negroes serving with the A. E. F. in the southern part of France were astonished to find among the French populace a liberality touching on the drawing of the color line of so broad a character that it practically meant drawing no color line at all. The idea especially appealed to one of the pair. Lounging on the dock at Brest one fine day, he expounded his views to his friend.

"Yas, suh," he said, "I thinks dis yere war is sho' gwine mek things diff'unt at home f'um whut dey wuz in de pas'. So des ez soon ez I gits back to old Spartanburg I aims to buy me a suit of w'ite clothes—all w'ite fum haid to foot—and go walking down de street wid a w'ite pusson, bound fur de soda fountain. Whut you aims to do w'en you gits back?"

"Me?" said his friend. "Well, I aims to buy me a suit of black clothes—all black f'm haid to foot—and go walkin' down de street behine you bound fur de cemetery."

He gazed off into space a moment.

"Me, I don't 'speck to find things so ver' diff'unt w'en I gits home," he added.

"What, giving up already?" said a gentleman to a youthful angler. "You must bring a little more patience with you next time, my boy." "'Taint patience I'm out of, mister; it's worms," was the reply.—*Boston Transcript.*

A man went into a Chicago library recently, a cloum-nist says, and asked for a copy of "A Kentucky Cardinal." The librarian said: "Look under 'Religious Books' in the catalogue." "But this cardinal was a bird!" remonstrated the applicant. "I have no interest in his personal habits," said the librarian, coldly.

A Practical Friend.

She: "I'd like to give you some little present as a memento of our friendship before you go. What would you like?"

He: "Er—a couple of dollars would be appreciated!"

A chair of alcoholic research is to be established at one of Japan's universities. A chair? A downy couch, and not too far from the floor, would better serve the purpose.

Ballades of a Dub.

by A. N. C. Fowler.

I Wish My Legs Were Built for Knicks.

Smith wears 'cm, Robinson and Jones—
But then their shapes can stand the strain,
With flesh to overspread such bones
As make my salient, tibial bane
Tenuity that can't attain
More plumpness than a pair of sticks
Or genuine proportions gain—
I wish my legs were built for knicks.
I've dieted on beer and scones
And unctuous fare, I've tried to train
My taste for countless ice cream cones
So sturdiness shall o'er me reign—
But ev'ry effort is in vain:
I'm cause of mirth to all the hicks
Who my poor, shrunken shanks disdain—
I wish my legs were built for knicks.
So, full of envious plaints and groans,
I drape my limbs in slacks de laine,
Concealing what no skill atones
If embonpoint is on the wane
And calves are sketchy in the main
As spiral, Gothic candlesticks—
Good Lord! No wonder I maintain
I wish my legs were built for knicks!

There was a girl in our town and she was wondrous wise.

When knee-high skirts were all the rage, she drew no young men's eyes.

The skirts she wore reached to her toes; all marked the modest miss,

But I recall when she was small, her legs were just like this, (). *Anon.*

Although she knew how bad they were, she knew not what to do

Until she heard of M. Coué, when quick to him she flew. She said his words o'er all day long and dreamed them through the night:

"Every day in every way, my legs are getting right."

But when she woke at early dawn, expecting heavenly bliss,

She found she'd overdone the thing; her legs were just like this,) (.

She was so overcome with shame, she couldn't even talk.

Her knees were so badly knocked that she could hardly walk. *Dev.*

L'Envoi

Friend Samson, come to life again
Lest still I kick against the pricks;
My golf is ossified, it's plain—
I wish my legs were built for knicks.

—*Judge.*

A clergyman from Northeastern Pennsylvania tells the story of an Italian who brought his baby to him to be baptized.

"Now," he said, "you see you baptize heem right. Last time I tell you I want my boy called 'Tom,' you call heem Thomas. Thees time I want heem call 'Jack,' I no want you call heem Jackass!"

Seasonable.

"I want a book for a high school boy."

"How about Fielding?"

"I dunno. Got anything on base-running?"—*Louisville Courier-Journal.*

WOMEN'S MEDICAL SOCIETY OF NEW YORK.

HOTEL McALPIN, MAY 21, 1923.

MORNING SESSION—9:30 TO 11:30 A. M.

"Gastroptosis in Relation to Gynæcology," Kate Campbell Mead, Middleton, Conn.

"The Clinical Relations of Gastric Analyses," Rose Donk, Buffalo, N. Y.

"Gastric Disturbances Following Abdominal Operations," Anna M. Stuart, Elmira, N. Y.

"Errors of Refraction in Children," Clara A. March, Buffalo, N. Y.

"Eye Symptoms in Relation to Scarlet Fever," Dora M. Tolle, Willard Parker Hospital, New York.

"Eye Diseases in Relation to Paranasal Infection and Eye Symptoms in Cases of Drug Poison, Syphilis, Nephritis, Diabetes, Rheumatism, and Other Systemic Conditions," Helen F. Gibson, Red Bank, N. J.

AFTERNOON SESSION—2:30 TO 4:30 P. M.

"The Use of Tuberculin in Tuberculosis of the Eye," Mary Dunning Rose, New York City.

"The Importance of Early Diagnosis in Carcinoma of the Uterus," Elise Strang l'Esperance, New York City.

Discussed by Marie Chard and Elizabeth Comstock, New York City.

"X-Ray and Radium Treatment of Uterine Fibroids," Kathleen L. Buck, Rochester, N. Y.

Discussed by Sarah G. Pierson and Marion Craig Potter, Rochester, N. Y.

"The Relation of Mental Deficiency to Prostitution," Alberta Greene, Bedford Hills, N. Y.

Discussed by Marjorie Burnham, Pennhurst, Pa., and Anne T. Bingham and Emily Dunning Barringer, New York City.

SCIENTIFIC PROGRAM COMMITTEE.

Rosalie S. Morton, New York City, Chairman.

Helene Kuhlman, Buffalo, N. Y.

Anna A. Hintze, Clifton Springs, N. Y.

SALT LAKE COUNTY MEDICAL SOCIETY.

The Salt Lake County Medical Society is arranging for the entertainment of visitors who may be able to stop over en route, either going to or coming from the meeting at San Francisco. The stopover here can be made inexpensive. Our Society has already appointed committees to greet and assist in making arrangements to see the city and, if possible, some of the surrounding territory, which may include wonderful mountain drives; a visit to Saltair, which is situated on Great Salt Lake; and a visit to the great copper mines in this vicinity.

Large parties intending to make this stopover are requested to give us notice as far in advance as possible as to the number in party and length of time of stopover. Any inquiries relative to this matter may be directed to Secretary Dr. Floyd F. Hatch, Desert Bank Building, Salt Lake City, Utah.

Medical Society of the State of New York Errata.

The Tuesday, May 22nd, Session of the Section on Medicine will be held at the Waldorf-Astoria at 2.30 P. M. and *not* at 9.30 A. M., as erroneously printed in the April issue of the NEW YORK STATE JOURNAL OF MEDICINE.

County Societies

BRONX COUNTY MEDICAL SOCIETY.

REGULAR MEETING, APRIL 18, 1923.

The meeting was called to order at 9 P. M., in the Bronx Castle Hall, the President, Dr. Leiner, in the Chair.

The minutes of the last regular meeting of the Society were read and approved. The minutes of the last regular meeting of the Comitia Minora were read for the information of the Society.

Election of candidates being in order, it was moved by Dr. Popper, seconded and carried, that the Secretary be instructed to cast one ballot for the following applicants for membership: Arnold I. Gotoff, Henry Greenberg, Martin Lewis Janes, Charles Sandler, Arthur B. Sullivan.

Dr. Amster moved that, in view of the lengthy scientific program of the evening, the business session of the evening follow the scientific session. Motion seconded and carried.

The Scientific Program, arranged by the Bronx Pediatric Society, was as follows:

"The Newer Aspects of Rickets," Alfred F. Hess, New York.

Discussion led by Roland G. Freeman, Leon T. Le Wald and Theodore Zucker. Dr. Hess closed the discussion.

"Foreign Bodies in the Respiratory Tract of Children, with Observations on Diagnosis," Chevalier Jackson.

Discussion led by Sidney Yankauer, I. Seth Hirsch and Sidney V. Haas. Dr. Jackson closed the discussion.

Dr. Goldberger moved that a vote of thanks be extended to Dr. Alfred F. Hess and Dr. Chevalier Jackson and the gentlemen who discussed their papers. Motion seconded and carried.

Dr. Lukin moved that a vote of thanks be given to the Bronx Pediatric Society for the fine program arranged by them. Motion seconded and carried.

MEDICAL SOCIETY OF THE COUNTY OF NASSAU.

REGULAR MEETING, MINEOLA, APRIL 24, 1923.

The meeting was preceded by a dinner at the Hotel Nassau, Mineola. Following the dinner the meeting was called to order by the President, Dr. Seaman, at 8:30 P. M.

The President opened the meeting with remarks upon the good attendance and the encouragement such an attendance gave to the officers of the Society. At the suggestion of the President and on motion duly seconded and carried, it was decided to hold the May meeting on Tuesday evening, June 5, at some place on the shore, and the President was authorized to appoint a Committee of Arrangements for the same. The President appointed Drs. Runcie, Martin and Schilling.

The Secretary presented the report of the Board of Censors. One application only had been that of Dr. Albert M. Bell, of Sea Cliff. The report was favorable and, on motion, the report was accepted, and the Secretary was instructed to cast the ballot of the Society for the election of Dr. Bell.

Dr. Newton, Chairman of the Committee on Legislation, made a full and extended report in regard to legislation affecting the medical profession. He recommended that everyone present wire the leader of the Senate in reference to the Chiropractic measures now before the Legislature. There are two bills: Senate Bill No. 1477 and Assembly Bill No. 2106. These bills differ, and the Assembly Bill is preferable. These telegrams should ask Senator Walker to substitute this Assembly Bill, Int. 1485, print 2106, in place of Mr. Lattin's Senate Bill No. 1477. The Secretary was instructed to notify the members of the Society in accordance with Dr. Newton's suggestion.

The paper of the evening was read by Dr. Fensterer, on "Poisoning by Mercury Bichloride." The paper was interesting and instructive. Some discussion followed by Drs. Newton, DeLano, Jessup and Jaques.

Under new business, it was stated that some of the Societies are urging their members to use the letters M.D. rather than the word "Doctor" or the abbreviated form "Dr." On motion, it was recommended that this style be followed by the members, so far as possible.

The following were present at the meeting:

Drs. Bell, Calvelli, Cleghorn, Cooley, Derby, DeLano, Fensterer, Grimmer, Holcomb, Jessup, Jasper, Jaques, Keays, Kerrigan, Malcolm, Mann, McChesney, Martin, Newton Newman, Overton, Phipps, Perry, Runcie, Schilling, Seaman, Steele, Tibbetts, Wahlig.

Books Received

Acknowledgment of all books received will be made in this column, and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interest of our readers.

ENVIRONMENT AND RESISTANCE IN TUBERCULOSIS. A presentation of the nature of environment and resistance and their relation to the pathology, diagnosis, symptoms and treatment of tuberculosis. By ALLEN K. KRAUSE, A.M., M.D., Associate Professor Medicine, Johns Hopkins University. Williams & Wilkins Company, Baltimore, Md., 1923. Price, \$1.50.

THE ANTIQUITY OF DISEASE. By Roy L. Moodie, Associate Professor of Anatomy in the University of Illinois. The University Chicago Press, Chicago, Ill.

THE FORM AND FUNCTIONS OF THE CENTRAL NERVOUS SYSTEM. An Introduction to the Study of Nervous Diseases. By FREDERICK TILNEY, M.D., Ph.D., Professor Neurology, Columbia University, Consulting Neurologist, Roosevelt Hospital; and HENRY ALSOP RILEY, A.M., M.D., Associate in Neurology, Columbia University, Associate Attending Neurologist, New York Neurological Institute. Foreword by George S. Huntington, Sc.D., M.D., Professor Anatomy, Columbia University. Second Edition, 591 figures, containing 763 illustrations of which 56 are colored. Paul B. Hoeber, New York, 1923. Price, \$12.00.

NURSERY GUIDE FOR MOTHERS AND NURSES. By LOUIS W. SAUER, M.A., M.D., Senior Attending Pediatrician, Evanston Hospital; formerly Attending Physician, Chicago Infant Welfare, and Assistant Attending Physician Children's Memorial Hospital, Chicago. Illustrated. C. V. Mosby Co., St. Louis, 1923. Price, \$1.75.

THE PATIENT'S VIEWPOINT. By PALUEL J. FLAGG, M.D., author of "The Art of Anæsthesia." The Bruce Publishing Company, Milwaukee, Wis. Price, \$1.30 net.

THE HEART IN MODERN PRACTICE, DIAGNOSIS AND TREATMENT. By WILLIAM DUNCAN REID, A.B., M.D., Chief, Heart Clinic at the Boston Dispensary. 32 illustrations. J. B. Lippincott Company, Philadelphia. Price, \$5.00.

INFLAMMATION IN BONES AND JOINTS. By LEONARD W. ELY, M.D., Associate Professor Surgery, Stanford University. 144 Illustrations. J. B. Lippincott Company, Philadelphia.

COUÉ FOR CHILDREN. By GERTRUDE MAYO, with a preface by EMILE COUÉ. Illustrated. Dodd, Mead & Company, 1923. Price, \$1.50.

THE MEDICAL CLINICS OF NORTH AMERICA (Issued Serially, one number every other month). Volume VI, Number 5, March, 1923. By Ann Arbor Internists. Octavo of 273 pages and 22 illustrations. Per clinic year (July, 1922, to May, 1923). Philadelphia and London: W. B. Saunders Company. Paper, \$12.00; Cloth, \$16.00 net.

LEGAL MEDICINE AND TONICOLOGY. By many specialists. Edited by FREDERICK PETERSON, M.D., Manager Craig Colony for Epileptics; WALTER S. HAINES, M.D., late Professor Chemistry; Materia Medica and Toxicology, Rush Medical College, and RALPH W. WEBSTER, M.D., Assistant Professor Medical Jurisprudence, Rush Medical College. Second Edition. Two octavo volumes, totaling 2268 pages, with 334 illustrations, including 10 insets in colors. Philadelphia and London: W. B. Saunders Company, 1923. Cloth, \$20.00 net.

Book Reviews

INFANTILE CIRRHOSIS OF LIVER. By SANTOSH KUMAR MUKHERJI, M.B., M.R.A.S., Editor, Indian Medical Record; Lecturer, National Medical College India, and King's Hospital. With a foreword by Major General B. H. DEARE, C.I.E., M.R.C.P., D.P.H., I.M.S., etc., Surgeon General Bengal, formerly Dean Medical Faculty, Calcutta University. The Windsor Press, Calcutta, 1922.

Mukherji's book is really a brochure and deals with a condition seen only in India. This disease is infantile cirrhosis of the liver, infantile biliary cirrhosis, or infantile liver. It is found only in children between six months and three years of age, and is characterized by fever and enlargement of the liver, which in turn is followed by contraction of the organ. Strange to relate, the disease is seen more often, proportionately, among the overfed children of the rich than among the ill-fed children of the poor, who cannot afford to give their babies anything except mother's milk. It is more common among the Hindus and rarer among the Mohammedans and Anglo-Indians, and more prevalent in the cities than in the country districts.

After a consideration of the many theories of the etiology of this strange disease, the writer states his own opinion, which is based on considerable original observation and experiment. The factors which he believes are active in the causation of the condition are overfeeding, irregularity of feeding, deficiency in mother's milk, artificial foodstuffs, and especially excess of carbohydrate in the diet. The following are cited and ruled out as causative factors; alcoholism in the parents, congenital lues, malaria, kala-azar, amyloid disease, parasitic infection, and deficiency in antiscorbutic vitamin. W. H. DONNELLY.

OPHTHALMOSCOPY, RETINOSCOPY AND REFRACTION. By W. A. FISHER, M.D., F.A.C.S., Chicago, Ill., U.S.A., Professor Ophthalmology, Chicago Eye, Ear, Nose and Throat College. 248 illustrations, 48 colored plates. Published by W. A. Fisher, M.D., F.A.C.S., 31 North State Street, Chicago, Ill., 1922.

This book of some 200 odd pages is an extremely elementary work on the subject—an ophthalmological primer, so to speak. As such, it is excellently written, the style easy, the language good; it is didactic without being boresomely so. The author makes it clear that

he has definite and clear ideas on the teaching of the subject, one of which is his insistence on the use of the schematic eye.

Associated with this there are in the back of the book duplicates of the plates in the text, 24 in number, to be cut out and studied in the schematic eye.

In the section devoted to ophthalmoscopy one feels a loss in not finding any attempt at correlation of the ophthalmoscopic findings with the human economy—their meaning is not explained, though treatment is indicated. The exposition of Retinoscopy and Refraction is clear though abbreviated.

Taken as an introduction to a deeper study of the subject, with much practical work in addition, the book is valuable. But one can hardly agree with the author that this work is the open sesame for the general practitioner to the profound subjects of Ophthalmoscopy, Retinoscopy and Refraction. E. CLIFFORD PLACE.

THE OXFORD INDEX OF THERAPEUTICS. Edited by VICTOR E. SORAPURE, M.B., Ch.B., F.R.C.S. (Edin.). London: Henry Frowde and Hodder & Stoughton, 1921. Price, \$12.00. (Oxford Medical Publications.)

This is a book of more than a thousand pages, small type, unlead and, therefore, crowded with a wealth of information similar to the "Encyclopedia," edited by Drs. Gould and Pyle, issued some twenty years ago. According to the editor it was created in an "effort to pool the fruit of our common experience for the mutual advantage of the Practitioners on both sides of the Atlantic." It might have been titled, with equal accuracy, "An Index to the Practice of Medicine," as it contains brief surveys of almost the entire field—Diseases of Children, Fractures, Genito-Urinary Surgery, Eye Surgery, etc., all in addition to its therapy of other branches.

While many Americans have contributed to its pages, its viewpoint is mostly British, and its plan is largely empiric rather than scientific. However, the effort to make brevity an important consideration has been well accomplished, and the result is a readable and fairly accurate product. Many of the articles are excellent, notably "The Oxidation and Reduction Theory of Chemotherapy," by J. E. R. McDonagh; this is a little masterpiece of lucidity and brevity. It is interesting to note in the section on "Agents" such remedies as Lactopeptine and Sanatogen.

As a whole, the book is destined to supply the need of many who are looking for a book carrying a lot of information, briefly told, on almost every conceivable therapeutic detail, from Anaphylaxis to Oatmeal gruel—and then some. M. F. DEL.

THE PRINCIPLES OF ELECTROTHERAPY AND THEIR PRACTICAL APPLICATION. By W. J. TURRELL, M.A., D.M., B.Ch. London: Henry Frowde and Hodder & Stoughton, 1922. Price, \$3.85. (Oxford Medical Publications.)

Of the numerous volumes that have followed one another since the Great War upon the above subject, the appearance of this work can be classed as the best yet written in the English language. It has indeed been a great pleasure to the reviewer to have read this book from cover to cover.

The author classifies the subject in four large divisions.

I. The Therapeutic Action of Current Electricity.

II. The Therapeutic Action of Radiant Energy.

III. Electro Diagnosis.

IV. Outline of the Applications and of the Mode of Action of Electricity in Certain Diseased Conditions.

Part I discusses the constant current, interrupted currents of low and high frequency, and the currents derived from the Static Machine. The subject matter of this part is so clearly and simply written that even the novice in Electrotherapy could derive such information

in so few words that would ordinarily take months of study.

Part II, discussing Radiant Light, which includes Ultra Violet Radiation and X-Rays. The author has deeply studied the latest researches upon the action of light. The chapter on the Action of X-Rays is filled with the latest studies and has never been so fully expressed in so few words.

Part III is concerned with Electro Diagnosis especially of peripheral nerve lesions.

Part IV explains the actions of electrotherapy in some of the diseased conditions for which it is applied, and indications are given of the type of cases suitable for electrical treatment. In this last part we must actually admire the honesty of the author in especially that he devotes much more space to describe the limitations and failures of Electrotherapy than to its successes. But although we certainly agree with the author in his various points cited in its limited field of action, we must say in treating disease according to its pathological phases we who use Electricity in our therapeutic armamentarium are more specific and scientific, because the modalities mentioned have accurate measurements and are applied directly to the lesions that we treat.

B. KOVEN.

HUGHES' PRACTICE OF MEDICINE, INCLUDING A SECTION ON MENTAL DISEASES, AND ONE ON DISEASES OF THE SKIN. Twelfth Edition, by R. J. E. SCOTT, M.A., B.C.L., M.D., New York. Fellow American Medical Association, New York Academy of Medicine; formerly Attending Physician, Demilt Dispensary and Bellevue Dispensary. With 63 illustrations. P. Blakiston's Son & Co. Philadelphia, Pa. 1922. Cloth, \$4.00.

This volume gives a concise presentation of general medicine, dermatology and mental diseases. Treatment is especially considered. This book should be of especial benefit to medical students and those practitioners who are desirous of a rapid orientation in medicine.

H. J.

PUBLIC RELIEF OF SICKNESS. By GERALD MORGAN. The Macmillan Company, New York. 1922.

In this book, which is only a small volume of about 200 pages, the author reviews very concisely the development of community relief of sickness, first in foreign countries and then in the United States. He discusses the relation of sickness to poverty; the dispensary and hospital treatment of community illness; and the matter of voluntary insurance against sickness. He takes up in detail the subject of cash relief and medical treatment as practised in Denmark, Germany and England, and then discusses the wisdom of divorcing these two factors. In his final chapters, he gives reasons for the adoption of compulsory health insurance for cash benefits only in America, and finally advocates public medical relief by health centers in this country.

From a theoretical standpoint, his argument for this type of health center seems logical enough, but practical experience does not indicate that governmental subsidy and supervision is at all desirable. The natural tendency beyond this stage extends to governmental control with all the red tape, routine procedures, and lack of initiative that this control implies. The medical profession is not inclined to become a mere machine with no incentive for progress in the fields of practice and research.

The book is of value in presenting arguments with which the medical profession must be familiar in the further consideration of this important matter of community relief of illness. The medical man must be prepared with some constructive substitute for the state control advocated by many people today.

A. E. S.

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ADDRESS OF THE PRESIDENT.*

By ARTHUR WOODWARD BOOTH, M.D.,

ELMIRA, N. Y.

FIFTEEN years before the birth of Pasteur, whose centennial we celebrate this year, a small handful of physicians organized our present Society for mutual benefit by exchange of ideas; and for the express purpose of establishing medical standards and elevating the dignity of our profession.

It might be profitable to pause a moment to consider what vast changes have occurred since then. What a curiously different world it was! So comparatively simple and utterly lacking in what we now accept as the ordinary comforts of life.

Our founders lived in an age when the sciences, now so essential to the understanding of medicine, were practically unknown. Out of the jumble of empirical facts and beliefs, then passing for science, we have preserved but little and that chiefly for its historical interest.

Yet we are bound to believe that the physicians of that time were wise for their generation; were honored and respected by the community at large, and beloved and cherished by their patients. Not so much, perhaps, for their fundamental knowledge and skill in medicine as for their earnest devotion; their manner of serving the sick from a deep sense of duty, and their true professional dignity.

The physician of that time played an important rôle in the community aside from his purely medical service. His advice was eagerly sought in all domestic and business relations. He was a power in the community.

Much of this beneficent influence is now lost or delegated to others, less sympathetic, owing to

the complexities of modern life and the absorption of our energies in more technical pursuits.

Certain it is we have lost our former personal touch. The chief appeal, today, is impersonal and based almost solely upon the value of our scientific methods and attainments, too often misconstrued by the intelligent, and altogether incomprehensible to the masses.

So far as it is humanly possible, we have lifted the veil of mystery surrounding the phenomena of disease, but the human mind is still "in the making," and that of the ordinary individual, tinged with a mediæval inheritance, clings tenaciously to the element of mystery, especially with things that have to do personally with life and death.

Another primitive trait of mind is credulity, that strange, illogical quality which prefers to believe rather the impossible than the possible, even when demonstrated.

The persistence of these—mysticism and credulity—provides ample opportunity for the growth of pseudo-medical cults and institutions, conceived and promulgated usually by groups possessing no higher mental qualities than their impressionable victims.

The universal upheaval, incident to war, has caused everywhere the unsettling of minds, easily moved and enticed by superstition and the occult.

In view of what is going on in the serious scientific world, and especially in the branches underlying medicine, it is, indeed, disturbing and disheartening to behold so much false clamor. The metamorphosis of medicine, since Pasteur, from an uncorrelated mass of facts and fancies to its present scientific status, within a single lifetime, is the most tremendous fact of history.

The dependence of the community upon medicine is becoming more and more intimate and

* Read at the Annual Meeting of the Medical Society of the State of New York, at New York, May 22, 1923.

important. Modern civilization has been greatly modified and is now absolutely sustained by it.

No other field of activity equals it in importance or in the multiplicity of its contacts with human affairs.

The practical application of the medical sciences has accomplished more than all other agencies combined in combating the ravages of man's three great enemies—War, Pestilence, and Famine.

Recent explorations in Yucatan have discovered the remains of an extremely ancient and highly advanced civilization. The mystery of its extinction is now yielding to the work of deciphering the primitive alphabet and symbols. We have already sufficient data to warrant the belief that the utter ruin of this people was accomplished by devastating waves of small pox and yellow fever.

The possibilities of such a catastrophe within our own borders and time, is a staggering thought, yet this great city would succumb within a month without the intelligent, faithful, and constant vigilance of medical men both in private and public health work.

The stupendous amount of work done quietly and orderly in our thousands of hospitals, and the far-reaching benefits of the research laboratories surpass anything hitherto known in the general field of the humanities.

All this is mentioned, not in a boastful vein, but rather to express in abstract form what Medicine is and what it is doing.

Among those who are thinking clearly, there is no little concern over certain disturbing tendencies of the times. Much is being written and said of the "Revolt against Civilization." Lothrop Stoddard mentions as symptoms of incipient revolution: (1) Destructive criticism of existing order; (2) revolutionary theorizing and agitation; (3) revolutionary action.

He hastens to add: "strong, well-poised, societies are not overthrown by revolutions.

"Before the revolutionary onslaught can have any chance of success, a social order must first have been undermined and morally discredited. This is accomplished by destructive criticism."

To those of us who can see beyond the immediate hour, there appears to be good cause for apprehension at the continuous and deliberate destructive criticism of Medicine and the all too

apparent progress of "revolutionary theorizing and agitation."

There are many strange currents now running in America, profoundly antagonistic to Medicine. They find expression in legislative acts, and the interpretation of the word Medicine, curiously different from our own conception of it.

There are people who by gift or will actually establish permanent funds to prevent Medicine from advancing in the field of research.

Certain religious sects and humane societies, pitiful travesties on both religion and humanness, openly avow their opposition to important medical functions, while one cult claims as a religious prerogative the right to attend the sick, and at the same time emphasizes its disbelief in the existence of bacterial infection and well-proven pathology.

Through specious interpretation of our laws which interdict any interference with religious pursuits, the authorities do little or nothing towards legal control of these dangerous practices.

A casual glance at the great number of legislative bills, relating to medicine, introduced annually in the various State and National legislatures, is sufficient evidence that there is considerable destructive criticism abroad.

It is significant that only a very small proportion of these bills are designed to aid and assist medicine, and that nearly all are disapproved by thoughtful and conscientious physicians.

The enactments restricting the possession, the amount, and the use of pain-destroying drugs and alcoholic stimulants by physicians; and the imposing of a special tax on the physicians for a license to use these in limited quantities only, to save life and control pain are indicative of how far our functions are entering under the control of the fanatic; the culpably ignorant, and the moron type.

Possibly one of the most dangerous and alarming symptoms of "revolutionary theorizing and agitation," is the persistency of organized medical pretenders who clamor for legal recognition of their outrageous theories and the privilege of applying the same, unrestricted by the present constituted authorities which regulate the practice of medicine.

These medical nihilists and bolshevists, while professing unusual skill in diagnosis and the treatment of disease, deny the necessity of the knowledge of the fundamental sciences upon which modern medicine is predicated. They have turned back the hands of time to the era of our founders, who, we are safe in saying, would have instinctively repudiated such illogical and preposterous claimants.

Yet annually, we behold the sad spectacle of our law-makers seriously listening to these and contemplating their admission to practice upon the public. Not because of any special merit, so far demonstrated, but solely in response to a popular demand of gullible and shallow-thinking people.

Quite as vicious is the continued neglect and failure of our authorized bodies to enact a Medical Practice Act adequate to protect the public against the ignorant; the incompetent, and the non-scientific medical pretenders.

The chief opponents of these protective measures have been the very groups confessedly now practicing medicine illegally and, according to our scientific standards, illogically. Their protests against the State safeguarding the health of the people is a most colossal display of effrontery and insolence, comparable only to organized bandits protesting against establishment of criminal law.

Recently, a so-called enlightened governor, possessing a legal mind, and admittedly not swayed by political expediency, actually vetoed a Medical Practice Act, modelled by the highest State educational and medical authorities and approved by the representatives of the people themselves. The governor's memorandum, in vetoing the measure, tacitly admitted the necessity for such a measure, but pronounced the penalty proposed "too severe."

This showed a curious bias of mind, almost amounting to tender solicitude for the offender against the health and best interest of the community. It betrayed a lamentable lack of appreciation and comprehension of the entire situation.

If the State expects men of ability and brains to devote their lives and energies to medicine and in service to the community; and if the State wants Medicine, as an institution, to continue its present functions, there must be furnished the encouragement of adequate facilities; protection, and respect.

The large proportion of our most desirable citizens seldom become interested or informed on the interrelation of social welfare and medicine. The commonplace idea of medicine is still the primitive one of a wise man and his pill box.

Our most loyal friends are too much inclined to dismiss any controversy between medicine and the anti-medical institutions, as merely a local collision between the "old school," and some innovation-type, possibly containing some worthy element for good.

It is exceeding difficult to enlist the active aid of intelligent laymen. They seem utterly bewildered and entranced by the host of emotional gestures now so prevalent, and remain oblivious to the deeper changes and sinister influences which are threatening our civilization, as manifested by the rapid deterioration of the nation's chromosomes, and the growing disrespect for law, medicine, and moral standards.

As a profession, favorably qualified by special education and experience, we must perform our duty towards society in combating the forces now threatening its structure. We must return to the traditions and ideals of the fathers, too long neglected and unobserved.

Too much emphasis cannot be laid on the urgent needs of complete and efficient organization to create and support medical ideals and leadership.

No physician is fulfilling his mission, who fails to contribute his share of moral support and influence for a broader medical solidarity.

This call is not alone for the medical man, but for all who compose the intelligentia, who must be enlisted in the cause of humanity lest brains succumb permanently to brawn.

Medical Society of the State of New York

ANNUAL REPORTS

1922

REPORT OF THE SPEAKER.

To the House of Delegates:

The work as Chairman of the Committee on Revision of the Principles of Medical Ethics has occupied very largely the time and attention of the Speaker during the past year. The title "Principles of Professional Conduct of the Medical Society of the State of New York," was selected because it was considered more descriptive. Many changes in the text were suggested while endeavoring to apply the principles definitely to the professional conduct prevailing in this State. Instead of articles, chapters and captions, there are in the revised copy only sections and a marginal index for each section. In the double-column printed report, economy of space made it necessary to place the marginal index as a heading for each section, but when printed in pamphlet form the marginal index will reappear as in the original copy of the revision.

All systems of medical ethics have been founded upon "The Oath" and the "Law of Medicine" as handed down to posterity by Hippocrates, the "Father of Medicine." In later years it is no longer surprising to read in the papers that Special Committees are authorized to prepare Codes of Ethics for several of the professions; it is remarkable that they never had such a thing before.

The original Code of Ethics of the American Medical Association was adopted in 1847 and was binding upon the State Society until 1882. The Section on Consultations was the bone of contention. The State Society demanded larger liberty in extending the benefits of acquired special skill than the advocates of the Code of Ethics were disposed to grant. The latter may be called strict constructionists—let us quote from their most reasonable exponent, the renowned professor of medicine, Dr. Austin Flint Sr.: "Whenever practitioners assume a distinct system of practice seeking popular favor on the ground that they belong to a 'New School' based upon truth and productive of good, whereas the regular profession belong to an 'Old School' based upon error and productive of harm;—how can there be fellowship in consultation or in other respects? And with opposing views of therapeutics, how could such consultations accomplish

the sole object in view, namely, the good of the patient?"—Dr. Alfred C. Post, President of the Faculty of Medicine of the University of New York, was one of the leaders of the opposition to the Code of Ethics; he said in part—"In a small village where there are but two physicians, one of whom is regular and the other a homeopath, an obstetrical or surgical case may occur in which the attending physician needs an intelligent and trained assistant to aid him in an operation, on the skillful performance of which, the life or well being of the patient may depend. Under these circumstances the interest of the patient is to be regarded as having far higher claims than any abstract or theoretical views as to the dignity or standing of the profession. A strong reason for insisting on liberty in consultations is the bitter and persecuting spirit which has recently been exhibited by some of the advocates of the old code."

In February, 1882, a new code was adopted by the Society which contained very liberal provisions regarding consultations. The supporters of the American Medical Association Code of Ethics led by Drs. Austin Flint Sr., T. Gaillard Thomas, J. W. S. Gouley, William T. Lusk and others formed the New York State Medical Association and its delegates were recognized by the national body.

At the annual meeting of the American Medical Association in June, 1882, the delegates from the Medical Society of the State of New York were not recognized, nor permitted to take part in the proceedings. The two state medical organizations worked side by side for over twenty years; and many of the younger men were members of both bodies. The important factor which led to the amalgamation of the Society and the Association was the expense of supporting two State and County organizations which were active in duplicating each other's work. Two Medical Directories were published annually. The Association published the New York State Journal of Medicine and provided for its members legal defense in cases of alleged mal-practice; there was also keen rivalry for new members.

In January, 1902, the Medical Society of the County of New York appointed a committee and asked the New York County Medical Association to appoint a similar committee for the pur-

pose of uniting the two medical organizations. The New York County Medical Association answered that the charter and by-laws of the New York State Medical Association did not allow County Associations to act independently on State questions; and suggested that the request should come from the Medical Society of the State of New York to the New York State Medical Association. At the annual meeting of the State Society in February, 1902, a committee of five was appointed and the President of the State Association was duly notified and he submitted the communication to the Council of the Association for action. The Council appointed a committee of five, of which the writer was chairman, to meet the committee of the State Society for conference on the question of the union of the two State Medical organizations with representation in the House of Delegates of the American Medical Association.

The Joint Committee agreed that the name nearly a century old should be retained—"Medical Society of the State of New York." It further agreed to adopt the general plan of organization of the State Association, including the Directory, the New York State Journal of Medicine and the legal defense in cases of alleged mal-practice. After the joint agreement was signed the committee of the Society met to deliberate upon the purport of Chapter XV of the By-laws of the American Medical Association, which included in very positive language the old Code of Ethics. This became a real stumbling block as the Society's Committee asked that its exception to Chapter XV of the American Medical Association By-laws be noted on the signed agreement; the request was carried out.

To meet the new situation constructively, the writer prepared a complete revision of the Code of Ethics, not a word of which had been changed in fifty-five years. And he later obtained the consent of the Council of the State Association to submit that revision of the Code of Ethics to the House of Delegates of the American Medical Association at the annual meeting in June, 1902.

At the next annual meeting of the American Medical Association, in New Orleans, 1903, the writer, as chairman of the Committee on Revision of the Code of Ethics, moved in the House of Delegates the adoption of the revised Code under its new title "Principles of Medical Ethics." There was indeed a surprise when Dr. Charles A. L. Reed of Ohio, an ex-President of the Association, submitted a complete revision of the Code of Ethics as a substitute amendment. Both revisions were referred to a special committee made up of one representative from each delegation entitled to sit in the House of Delegates. After the discussion in committee, Dr. Reed decided to withdraw his substitute Code

of Ethics and the "Principles of Medical Ethics" were adopted unanimously by the House of Delegates. With the ethical question settled, that stumbling block was removed and the agreement was again ratified without any exceptions.

In endeavoring to carry out the agreement, a new difficulty was encountered. The joint agreement contained a provision that a bill should be introduced in the Legislature for a new charter, which would unite the two State medical bodies under the name of the "Medical Society of the State of New York." Legal counsel was selected to put in proper form the proposed bill, but instead of a bill, the legal counsel prepared an opinion attacking the constitutionality of the proposed bill on the ground that mandatory legislation, affecting vested rights of the members of the two State bodies, was illegal, and his opinion was confirmed by eminent constitutional lawyers. The next best thing to do was to have the Legislature pass an enabling act to authorize the consolidation of the Medical Society of the State of New York and the New York State Medical Association. This act was passed and signed by the Governor early in 1904.

The next obstacle in the path of union and peace was after the joint agreement was ratified at separate meetings of the State Society and the State Association. An old code member in the East co-operated with the member in Onondaga County, who made an affidavit claiming that he did not receive the notice of the special meeting of the State Association at which the joint agreement was ratified. The learned Judge decided in favor of the maker of the affidavit and the special meeting of the State Association that ratified the joint agreement was declared illegal. Since then societies that are wise have adopted the following by-law—"Notices of all meetings shall state the date, place and hour and shall be mailed to each member — days before said meeting. The affidavit of mailing of the notice by the Secretary of the Society to the last recorded address of the member shall be deemed sufficient proof of service of such notice upon each member for any and all purposes." The old code member in the East had a change of heart and at the next legal meeting of the Association, moved that the report of the Conference Committee be accepted with thanks of the Association.

About four months later the Medical Society of the State of New York, profiting by the experience of the State Association, likewise called a legal meeting on the advice of Ex-Chief Justice Andrews of the Court of Appeals, and the State Society again ratified the Joint Agreement, but this time legally. It behooves incorporated Medical Societies to do their business legally if they wish to be secured against delay and expense of a court review of their proceedings.

On the ninth of December, 1905, the Supreme Court Justice, John M. Davy in the City of Rochester, signed the order under the enabling act, consolidating the Medical Society of the State of New York and the New York State Medical Association and thereby securing for the Medical Society of the State of New York all the rights and privileges enjoyed by both medical organizations. And the Court further ordered that the "Principles of Medical Ethics shall be submitted by referendum, to the vote of the members of the Society." This was done and the vote was canvassed May 10, 1906, those who approved by voting "yes" 3306—disapproved by voting "no" 197. Eighty votes were received after the expiration of the referendum. The envelopes were not opened.

There can be no modification of the Principles of Medical Ethics unless approved by another referendum vote after passing this House of Delegates. I recommend that the revision as presented by the Committee be adopted by the House of Delegates and a referendum vote of the membership of the Society be ordered on the Principles of Professional Conduct of the Medical Society of the State of New York.

The method of holding elections as provided in Chapter three, Section ten of the By-laws, demands a separate roll call for each office, for chairmen of standing committees, for delegates and for alternates, except in the event of a single nominee only for any office. As there are eight officers, six chairmen of standing committees,—delegates and alternates to be elected each year, there is a possibility of having to call the roll sixteen times and there are 170 members entitled to vote in the House of Delegates. No nominations shall be made for any office until the preceding ballot is counted and announced; furthermore, in case no nominee receives a majority of the votes cast a new ballot must be taken and again each voting member of the House of Delegates shall deposit his ballot upon call of the roll. The Speaker is aware that amendments have been prepared during the past year which will remedy the unnecessary time-consuming method of election with the gradual disappearance of the members of the House of Delegates as the election slowly drags along. I recommend the adoption of an amendment to Chapter iii, Section 10 of the By-Laws which will provide for printed blank-ballots containing the names of all nominees for places to be filled by Election at the Annual Meeting.

Again I wish to thank the members of the House of Delegates for the kind consideration and support I have received in the discharge of the duties of the office.

Respectfully submitted,

E. ELIOT HARRIS,
Speaker.

April 15, 1923.

REPORT OF THE PRESIDENT.

To the House of Delegates:

In reviewing the events of our Society during the past year, it is gratifying to report substantial progress along desirable lines of medical activity and organization.

With an enrollment of over 10,000, we now stand next, in numerical strength, to the A. M. A. and constitute approximately 12 per cent of that National body. We may well claim, therefore, to be classed among the few large medical societies of the world.

The unusual topography and wide extent of our State present barriers against a very intimate contact between the districts and groups, while the marked contrasts in density of population have created widely varying types of professional men who, at first blush, might appear to have very little in common.

It should be the constant aim and effort of the leaders of the State Society and the component County societies to promote broader acquaintanceship, and to so conduct affairs that some appeal be made to all groups and classes, thereby promoting a warmer professional fellowship and fostering a commendable community-interest so essential to preserve us as a moral force.

In view of our great potential strength, and the vital function of Medicine in the community, we readily recognize the tremendous possibilities and responsibilities which present themselves. Upon just how well and wisely we perform our part depends our continuance as a Society worthy to exert an influence in the State; to initiate broad medical movements, and to develop leadership in medical affairs.

This year has witnessed the first incident in our history of 116 years, when the State, through official channels, consulted our Society on public medical questions.

On February 26, 1923, Governor Smith called a conference to consider the problems of Rural Health, Medical Research, Medical Education, the Medical Practice Act and the Narcotic Evil.

He invited to this conference the State Society officers and Committeemen, the County Medical Society presidents and legislative chairmen. There were also present representatives of the State Board of Health, State Charities Commission and the Rockefeller Research Hospital.

After a free and frank discussion of the above topics, it became very evident the program was too extensive for assimilation without further time and study. To that end, the Governor appointed a small committee which was requested to continue the investigation and render a report.

Your president, as president of the State Society, was honored by appointment as Chairman of this committee.

The report, as submitted to the Governor, has been published in our JOURNAL.

This recognition of organized medicine and the sincerity of the Governor's motives deserve our highest commendations and fullest co-operation. We trust it has ushered in a new era, and established a precedent to be followed by succeeding Executives.

LEGISLATIVE BUREAU.

The organization of the Legislative Bureau is now well established. This is the outgrowth and expansion of the work formerly conducted, almost single handed, by the Chairman on Legislation.

It is important that each delegate take home to his own county this point, so frequently emphasized by our State Society Chairman, that the success of the Bureau, as now constituted, depends in large measure upon how earnestly and efficiently the Legislative Committees of the component County Societies react to the call of the State Chairman.

It is gratifying to report that, during the past year, the local committees have manifested an active interest and hearty co-operation in this regard.

Early in December, there was a largely attended conference of the County Chairmen on Legislation at Syracuse. This afforded an opportunity to exchange views and crystalize sentiment upon measures likely to appear at the forthcoming session.

It is to be regretted that we have little to report this year as to constructive enactments affecting Medicine. On the other hand, we are grateful that no objectionable or unfavorable legislation was passed.

Turning back the pages of history we see the men who have given unstintingly of their time and energy, all too often at great personal sacrifice, while serving the Society as Chairmen on Legislation.

Whatever position we hold today, in our relations with the State, is largely due to the sum total of their efforts. We have been extremely fortunate in finding men peculiarly adapted to this work. In view of the increasing complexities of the times, it seems anything but fair or reasonable to expect an active practitioner to devote quite the amount of time and energy which this work now requires.

The time seems ripe, therefore, to seriously consider some relief to the Chairman on Legislation in the way of a paid executive officer.

Undoubtedly the creation of the Governor's Medical Advisory Board had its moral effect in deterring unfair legislation this year. Whatever was done by this Board was in co-operation with the Legislative Bureau, and supplemental to it. It would appear, therefore, that every effort on our part should be put forth to foster and preserve this contact with official Albany.

The establishment of such a Board might well be considered as an extension of the Legislative Bureau. To that end, I would recommend that the House of Delegates submit a list of representative physicians from which the Governor might select the personnel of his Advisory Board. For obvious reasons, such a list should include the Chairman on Legislation; the President and Secretary of the Society, and the Chairmen of the Standing Committees.

THE JOURNAL.

The excellent work of the Editorial Staff of the Journal deserves special mention, emphasizing the wider possibilities of this feature of our work, especially with a more frequent publication.

Following the action of the first meeting of the Council, the columns of the Journal have been open to all members for a free and unrestricted discussion of matters pertinent to Society affairs. Owing to the limitations in size and the infrequency of publication, we were of necessity obliged to limit the length of letters sent in for the Correspondence Department. In some instances, this was a decided disadvantage to the contributing member, who found difficulty in condensing the message into the small compass allowed.

Such a Correspondence Department affords an outlet and opportunity for expression and exchange of views to a great many members who otherwise might not be heard at all.

To furnish equal opportunity to all, whether Delegate or not, seems desirable and in keeping with the best tenets of democracy and fair play.

During the sessions of the State Legislature a monthly issue of the JOURNAL is lamentably lacking in furnishing news while still news, whereas a weekly issue could distribute practically all Legislative Bureau Bulletins to all the members, now sent by mail to only a few.

The Scientific papers, many of them of the highest value, often remain unpublished for months under our present monthly method. This is eminently unfair to the authors and to the large percentage of our membership unable to hear the papers read at the Annual Meeting.

After careful consideration and thought, I feel justified in recommending that steps be instituted to publish the JOURNAL every week, with possibly a fortnightly issue only, during July and August.

This will naturally require a paid Editor who should devote his entire time and energy to produce a JOURNAL worthy of our dignity and importance in the Medical World.

Being fully aware of the financial problem involved, I appointed a committee to carefully investigate this phase of the question. The report of this committee has not reached me in time to be included here, however, I have learned in-

formally that plans will be prepared in time for report at this meeting, and that the project of a weekly JOURNAL is feasible and possible without too great a strain upon our resources.

Such being the case, it would appear that the chief objection to this proposed change has been removed.

Some of our sister State Societies, with much smaller memberships, are now successfully publishing a weekly Journal.

ANNUAL DUES.

Something definite should be done at this session, looking towards a more adequate income to enable the Society to conduct its many activities.

Membership in the Medical Society of the State of New York has its distinct advantages. The Legal Defence feature alone, is worth many times the small annual dues.

I am creditably informed that the better class of Indemnity Insurance Companies decline to issue Malpractice Protective Policies in New York State unless the physician is a member in good standing of our organization.

It is very evident if we elect to continue our Legislative Bureau along the present lines, more funds must be supplied.

The clerical work of our general office in New York City is increasing every year, and a larger appropriation is absolutely necessary to maintain this department.

The same may be said of our Legal Department. I would recommend that the annual dues be increased sufficiently to meet the increased requirements of our budget.

Throughout our State, there are many localities where physicians have expressed a desire to go to some Medical Center for the purpose of post-graduate study, but they are too busy and too indispensable to their communities to warrant the necessary absence from home.

This situation is being met in some States by a Medical School Extensive Movement, whereby duly appointed physicians go to country districts to lecture and demonstrate before groups of neighboring physicians. A modest fee is charged for this course of lectures.

Recently our State Board of Health has developed a plan somewhat similar, and now has available lecturers on children's diseases. These lecturers will go without charge to the physicians whenever officially invited by the County Medical Society.

Inasmuch as a certain degree of misunderstanding and misapprehension exists concerning the activities of the State Board of Health, this recent innovation which appears to be devoid of any objectional features deserves recognition and co-operation.

CONCLUSION.

In conclusion, I desire to express my deep appreciation of the honor of serving as your President during the past year. I want to acknowledge, too, the hearty support and loyalty of the officers and committeemen.

Among the duties of the president is that of officially visiting the District Branches and responding to the many invitations of the County Societies. In reviewing my journeys over the State, I recall with much pleasure the uniformly courteous and cordial receptions accorded me. They will remain long in my memory among the pleasantest experiences of the year. Wherever I went, I found an earnest body of men seriously interested in our activities and progress, which convinces me our organization is not living in vain.

Respectfully submitted,

ARTHUR W. BOOTH.

May 1, 1923.

REPORT OF THE SECRETARY.

To the House of Delegates:

In compliance with Section 5, Chapter VI, of the By-Laws, the Secretary submits the following report for the year ending December 31, 1922:

Membership, December 31, 1922.....	8,332	
New Members, 1922.....	799	
Reinstated members, 1922.....	722	9,852
<hr/>		
Deaths	130	
Resignations	68	198
<hr/>		
		9,655
Dropped for non-payment of dues, December 31, 1922.....		506
<hr/>		
		9,149
Elected after October 1, 1922, and credited as of 1923.....		266
<hr/>		
Membership, January 1, 1923.....	9,415	
Membership, January 1, 1922.....	8,664	
Membership, January 1, 1921.....	8,123	
Membership, January 1, 1920.....	8,571	
Membership, January 1, 1919.....	8,268	
Membership, January 1, 1918.....	8,339	
Membership, January 1, 1917.....	8,287	

The report of December, 1922, as compared with that of December, 1921, shows an increase in new members of 799, and a decrease in "members dropped" of 367. More than two-thirds

of the members dropped have already been reinstated and at least 50 per cent more will come in before the end of the year.

The increase of new members during 1922 was two hundred and twenty-nine over the preceding year, the largest number of new members ever admitted in one year.

The honor list of counties whose membership shows all dues paid for the year is as follows: Chemung, Herkimer, Lewis, Nassau, Oneida, Rockland, Schuyler, Seneca, Tioga, Washington, Wayne and Yates.

The work of the Committee on Legislation has been efficient and able. The special meeting which that committee called in Syracuse last December did more than any other one thing to unite and strengthen the medical profession of the State. The expense was negligible. I *recommend* that the House of Delegates authorize the calling of a similar meeting this fall, for the purpose of discussing legislative questions.

The appointment of a special Advisory Committee to the Governor was an epoch-making event, and one of great value to the medical profession. I *recommend* that the House of Delegates pass a resolution showing their proper appreciation of the Governor's action in this matter and I also *recommend* that the House of Delegates approve the recommendation made by that Committee.

The Society needs more money. It is only through an increase of dues or the levying of an assessment that reforms can be made, I *recommend* that the House of Delegates institute measures for increasing the income of the Society.

An important matter which the House of Delegates will consider at the coming meeting is the report on the Principles of Professional Conduct. This report has been prepared by a special committee and well deserves the careful consideration of every member.

One of the most important questions for the coming year concerns the JOURNAL, which although greatly improved, is capable of still further improvement and of being made an organ of great importance and value to the members. I therefore recommend the publication of a weekly JOURNAL, if such publication will not encroach too heavily upon the resources of the Society.

Last fall I travelled all over the State, and visited every district branch. Everywhere, I met with a warm welcome and can report that in every part of the State the Society is strong, enthusiastic, and working in harmony.

Respectfully submitted,

EDWARD LIVINGSTON HUNT.

May 1, 1923.

REPORT OF THE COUNCIL

To the House of Delegates:

The Council of the Medical Society of the State of New York takes pleasure in presenting the following report:

During the past year meetings have been held on the following dates:

April 20, 1922, in Albany; Minutes will be found in the June, 1922, issue of the NEW YORK STATE JOURNAL OF MEDICINE, page 293.

May 13, 1922, in New York City; Minutes will be found in the July, 1922, issue of the NEW YORK STATE JOURNAL OF MEDICINE, page 334.

December 2, 1922, in Syracuse; Minutes will be found in the February, 1923, issue of the NEW YORK STATE JOURNAL OF MEDICINE, page 89.

The Executive Committee has held regular meetings during the year, and a referendum vote of the Council has been taken on all matters of importance, which have come before it.

Respectfully submitted,

EDWARD LIVINGSTON HUNT,

May 1, 1923.

Secretary.

REPORT OF THE COMMITTEE ON PUBLICATION OF THE COUNCIL

To the House of Delegates:

At the meeting of the Council held on May 13, 1922, the following Committee on Publication, recommended by the Executive Committee, was appointed: Drs. Nathan B. Van Etten, Edward Livingston Hunt, James N. Vander Veer, Arthur D. Jaques, E. Eliot Harris.

The Council appointed Dr. Nathan B. Van Etten, Acting Editor. Dr. Albert Warren Ferris and Dr. Orrin Sage Wightman, were appointed associate editors.

JOURNAL.

The Treasurer's report shows the cost of the JOURNAL to the Society in 1922 to be \$8,631.05.

Although this is an increase of \$900 over the cost of publication in 1921, it is due to the necessity of publishing a larger edition owing to the increase in membership of the State Society. It is not in any way due to a decrease in the receipts from advertisements, which show a slight increase over 1921.

It is also a pleasure to say that the prospects for the coming year are bright as the JOURNAL at the present time has the largest number of advertising pages that it has had for a number of years.

DIRECTORY.

The Directory was published on time and the cost to the society as shown by the Treasurer's books was \$6,464.77, a decrease of \$177 over the previous year. This decrease was accomplished in spite of the increase in the edition of some three hundred more copies than in 1921. There was an increase of over \$700 in the receipts from advertisements.

Respectfully submitted,

NATHAN B. VAN ETEN,

May 1, 1923.

Chairman.

REPORT OF THE TREASURER

SETH M. MILLIKEN, *Treasurer*, In Account with THE MEDICAL SOCIETY OF THE STATE OF NEW YORK
Dr. Cr.

CASH RECEIPTS, YEAR ENDED DEC. 31, 1922.	
January 1, 1922, Balance	\$15,848.85
Directory Advertising, 1920.....	\$30.00
Directory Advertising, 1921.....	800.00
Directory Advertising, 1922.....	2,928.60
Directory Sales, 1921.....	1,188.50
Directory Sales, 1922.....	1,784.50
Annual Dues, 1921.....	853.00
Annual Dues, 1922.....	44,136.00
Annual Dues, 1923.....	1,430.00
Arrears	267.00
Clerical Work	193.84
Telephone	19.60
Interest on Deposits	619.88
Journal Subscriptions and Sales..	290.04
Journal Advertising	10,156.97
Journal Expense	4.00
Committee on Arrangements.....	300.00
Interest on Mortgage Certificates..	90.00
Refund on Traveling Expense....	105.98
Exchange .....	.10
Lucien Howe Prize Fund.....	94.68
Special Per Capita Charge, 1920..	58.00
Special Per Capita Charge, 1921..	2,815.00
	\$68,165.69

CASH PAYMENTS, YEAR ENDED DEC. 31, 1922	
Rent	\$1,600.00
Telephone	175.31
Insurance	5.70
Salaries—General	4,488.10
Journal Postage	1,077.79
Journal Commission	2,043.79
Journal Discount	373.37
Journal Salaries	2,290.28
Journal Expenses	155.41
Journal Publication	13,851.16
Journal Advertising Refund.....	3.00
Postage	280.03
Furniture and Fixtures.....	155.00
Liberty Bonds—4th 4¼%	4,934.13
Accrued Interest on Liberty Bonds	45.45
Union Dime Savings Institution...	67.50
Union Dime Savings Institution...	22.50
Traveling Expenses, General.....	1,117.43
A. M. A. Delegates.....	628.32
General Expense	254.14
Office Supplies	128.13
Stationery and Printing.....	504.83
Exchange	2.91
Audit	200.00
Repairs	19.92
Express	20.97
Bond Expense	12.50
Carfare	20.15
Lucien Howe Prize Fund.....	100.00
Annual Meeting, 1922.....	1,071.02
Annual Meeting, 1923.....	61.75
Legal Expense	13,228.00
Committee on Legislation.....	4,550.02
District Branches	519.00
Secretary	500.00
Directory Salaries	3,867.45
Special Per Capita Charge.....	10.00
Annual Dues, 1922.....	46.00
Committee on Medical Economics..	57.34
Directory Discount	151.35
Directory Commissions	688.55
Directory Incidentals	77.92
Directory Printing	7,044.71
Directory Stationery and Printing	293.75
Directory Return Sales.....	14.00
Directory Return Advertising.....	35.00
Directory Postage	531.20
Directory Delivery	867.44
Committee on Public Health and Medical Education	135.68
	\$68,328.00

Balance on Deposit with Guaranty Trust Company, Dec. 31, 1922.	
General	\$15,218.51
Committee on Medical Research	465.47
	\$15,683.98
Balance—Petty Cash ...	2.56
	\$15,686.54
	\$84,014.54

ANNUAL DUES, 1922			
County.	Amt. Paid	County.	Amt. Paid
Albany	\$915.00	Lewis	\$75.00
Allegany	165.00	Livingston	145.00
Bronx	2,475.00	Madison	163.00
Broome	475.00	Monroe	1,755.00
Cattaraugus ..	95.00	Montgomery ..	235.00
Cayuga	260.00	Nassau	390.00
Chautauqua ..	455.00	New York	14,075.00
Chemung	220.00	Niagara	357.00
Chenango	195.00	Oneida	811.00
Clinton	160.00	Onondaga	1,087.00
Columbia	200.00	Ontario	365.00
Cortland	115.00	Orange	455.00
Delaware	40.00	Orleans	95.00
Dutchess - Putnam	520.00	Oswego	275.00
Erie	3,145.00	Otsego	230.00
Essex	87.00	Queens	900.00
Franklin	235.00	Rensselaer	470.00
Fulton	180.00	Richmond	290.00
Genesee	100.00	Rockland	180.00
Greene	110.00	St. Lawrence ..	270.00
Herkimer	275.00	Saratoga	207.00
Jefferson	340.00	Schenectady ..	505.00
Kings	6,100.00	Schoharie	85.00

ANNUAL DUES, 1922—(Continued)			
County.	Amt. Paid	County.	Amt. Paid
Schuyler	\$55.00	Warren	\$140.00
Seneca	130.00	Washington ...	195.00
Steuben	309.00	Wayne	175.00
Suffolk	405.00	Westchester ..	1,420.00
Sullivan	140.00	Wyoming	130.00
Tioga	115.00	Yates	90.00
Tompkins	240.00		
Ulster	310.00	Total	\$44,136.00

ADVANCE DUES, 1923			
County.	Amt. Paid	County.	Amt. Paid
Albany	\$5.00	New York	\$350.00
Bronx	80.00	Rensselaer	10.00
Cattaraugus ..	30.00	Rockland	10.00
Chenango	155.00	Steuben	5.00
Erie	230.00	Sullivan	5.00
Essex	5.00	Tioga	5.00
Jefferson	10.00	Washington ...	10.00
Kings	480.00	Westchester ...	5.00
Madison	10.00		
Monroe	20.00	Total	\$1,430.00
Nassau	5.00		

DIRECTORY ACCOUNT.

<i>Income.</i>		<i>Expenditures.</i>	
Advertisements	\$3,998.60	Printing	\$7,044.71
Sales	3,059.00	Salaries	3,867.45
	<u>\$7,057.60</u>	Incidentals	77.92
Cost of Directory	\$6,464.77	Commissions	688.55
		Discounts	151.35
		Postage	531.20
		Delivery	867.44
		Stationery and Printing.....	293.75
	<u>\$13,522.37</u>		<u>\$13,522.37</u>

JOURNAL ACCOUNT, YEAR ENDED DECEMBER 31, 1922.

<i>Income.</i>		<i>Expenditures.</i>	
Advertisements	\$10,866.61	Publications	\$13,851.16
Sales	290.04	Postage	1,077.79
	<u>\$11,156.65</u>	Expenses	151.41
Cost of Journal	8,631.05	Salaries	2,290.28
		Commissions	2,043.69
		Discounts	373.37
	<u>\$19,787.70</u>		<u>\$19,787.70</u>

BALANCE SHEET, DECEMBER 31, 1922.

<i>Assets.</i>		<i>Liabilities.</i>	
Current		Current	
Petty Cash	\$2.56	Advance Dues, 1923.....	\$1,430.00
Cash in Bank.....	15,683.98	Committee on Medical Research	465.47
	<u>\$15,686.54</u>		\$1,895.47
Accounts Receivable	1,101.86	Trust Funds	
Inventory		Lucien Howe Prize Fund.....	\$2,500.49
Directory	\$700.00	Merritt H. Cash Prize Fund....	1,204.47
Directory Advertising	1,020.00		<u>\$3,704.96</u>
	<u>\$1,720.00</u>	Surplus	
Liberty Bonds	4,934.13	Balance, January 1, 1922.....	\$17,493.27
Accrued Interest on Liberty Bonds	45.45	Add Excess of Income over Ex-	
Deferred Charges		penditures for 1922.....	5,773.24
Annual Meeting, 1923.....	61.75		<u>\$23,266.51</u>
Trust Fund Investments			
Union Dime Savings Bank,			
Lucien Howe	\$750.49		
Union Dime Savings Bank,			
Merritt H. Cash	454.47		
Liberty Bonds	500.00		
Title Guarantee Mortgage Certi-			
ficates	2,000.00		
	<u>\$3,704.96</u>		
Fixed			
Furniture and Fixtures	1,612.25		
	<u>\$28,866.94</u>		<u>\$28,866.94</u>

Respectfully submitted, S. E. HENDERSON & CO., Public Accountants.

INCOME AND EXPENDITURES, YEAR ENDING DECEMBER 31, 1922.

<i>Income.</i>		<i>Expenditures.</i>	
Annual Dues, Arrears.....	\$267.00	Annual Meeting	\$825.77
Annual Dues, 1921	853.00	Committee on Medical Economics	57.34
Annual Dues, 1922.....	45,811.00	Committee on Public Health.....	135.68
Special Per Capita Charge, 1920..	48.00	Honorarium—Secretary	500.00
Special Per Capita Charge, 1921..	2,815.00	Salaries—General	4,478.10
Clerical Work, General	81.05	Rent	1,600.00
Clerical Work, New York County	102.79	Telephone	155.71
Interest on Deposits.....	619.88	Stationery and Printing	504.83
		Postage	280.03
		Expenses	254.14
		Insurance	5.70
		Auditing	200.00
		Legal Expenses	13,228.00
		Traveling Expenses	1,639.77
		Committee on Legislation	4,550.02
		District Branches	519.00
		Lucien Howe Prize Deficiency	5.32
		Doubtful Debts	584.77
		Office Supplies	128.13
		Exchange	2.81
		Repairs	19.92
		Express	20.97
		Bond Expense	12.50
		Carfare	20.15
		Cost of Directory	6,464.77
		Cost of Journal	8,631.05
			<u>\$44,824.48</u>
		Excess of Income over Expenditures	\$5,773.24
	<u>\$50,597.72</u>		<u>\$50,597.72</u>

REPORT OF THE COMMITTEE ON SCIENTIFIC WORK.

To the House of Delegates:

The Committee on Scientific Work respectfully submits the following report:

Your Chairman entered into correspondence with the officers of each one of the Sections soon after the appointment of the Committee, so the preliminary work was started before we had a formal meeting.

A meeting of the Committee was held on November 9, 1922, at the office of the Society, 17 West 43d Street, New York City. There were present: Drs. Arthur W. Booth, President State Society; Parker Syms, Chairman; Elias H. Bartley, Eugene H. Pool, Harvey B. Matthews, Philip Goodhart, Owen E. Jones, Eugene E. Hinman, and Arthur Jacques.

An officer of every Section was present except the Section on Medicine.

Two Sections, Eye, Ear, Nose and Throat and Public Health, Hygiene and Sanitation, were represented by their Secretaries. The other Sections except that of Medicine, were represented by their Chairmen.

Dr. Alsever, Chairman of the Section on Medicine, had already prepared a satisfactory program, which he submitted by mail.

After considerable discussion, it was resolved that Thursday be entirely devoted to clinics, and that a Committee be appointed to make the necessary arrangements. Your Chairman was empowered to appoint this Committee.

Your Chairman was authorized to notify Dr. Alsever of this resolution and request him to condense his program so that it would not exceed three Sessions; that is to say, Tuesday afternoon, Wednesday morning, and Wednesday afternoon.

At this meeting it was resolved that the Chairman of each Section be requested to send a synopsis of his program to the Chairman of this Committee within the next ten days.

This request was acceded to by the Chairmen of all the Sections except that on Eye, Ear, Nose and Throat. The Chairman of that Section was very dilatory, and when he finally did send a program, it was found that he had ignored the ruling of the Committee as to the Clinical Day, and had arranged to have papers read on that day, contrary to the ruling; so your Chairman felt obliged to call another meeting of the Committee on Scientific Work.

This meeting was held on March 8, 1923, at the office of the Society, 17 West 43d Street, New York City. There were present: Drs. Parker Syms, Chairman; William D. Alsever, Clayton W. Greene, Elias H. Bartley, Harvey B. Matthews, Eugene H. Pool, Eugene E. Hinman,

Philip Goodhart, Owen E. Jones, Seward Erdman and Dr. Edward Livingston Hunt, Secretary of the State Society.

At the meeting it was resolved that the Committee reaffirm the action taken at the previous meeting, limiting the presentation of papers to Tuesday afternoon, Wednesday morning and Wednesday afternoon, and devote the entire day of Thursday to clinics.

As the program submitted by the Chairman of the Section on Eye, Ear, Nose and Throat, included a Thursday morning session, contrary to the decision of this Committee, it was resolved that the number of papers for this Section must be reduced, and that the rearrangement of the program be left to the Chairman and Secretary of the Section and the Chairman of the Committee on Scientific Work.

Dr. Seward Erdman was appointed Chairman of the Special Committee on Clinics in November, 1922. He has added to his Committee, Dr. William W. Herrick, Medicine, and Dr. Frederic W. Bancroft, Surgery.

Dr. Erdman and his Committee have already done excellent work in this connection, and we feel assured that the experiment of having a Clinical Day will be given more than a fair trial.

The programs of the various Sections have been published in our JOURNAL and speak for themselves. We feel that the Society is to be congratulated on the excellent work done by the officers of the various Sections.

Respectfully submitted,

PARKER SYMS, *Chairman.*

March 30, 1923.

REPORT OF THE COMMITTEE ON ARRANGEMENTS.

To the House of Delegates:

The Committee on Arrangements takes pleasure in reporting that all the arrangements have been completed for the annual meeting.

The scientific sessions, general meeting, bureau of registration and information and the exhibit hall will all be located on the first floor of the Waldorf-Astoria.

Complimentary clinics have been arranged at the different hospitals for Thursday.

In addition to the annual banquet, which will be held on Wednesday evening in the grand ball room of the Waldorf-Astoria, there will be a dinner for the delegates on Monday evening, at the Columbia University Club.

Respectfully submitted,

J. BENTLEY SQUIER, *Chairman.*

May 1, 1923.

REPORT OF THE COMMITTEE ON PUBLIC HEALTH AND MEDICAL EDUCATION.

To the House of Delegates:

This Committee begs herewith to report, that during the fiscal year it has kept in touch with various problems pertaining to the relation of the Medical Society to the public health. We have considered the advisability of undertaking medical propaganda in the public press and have come to the conclusion that little was to be gained by it and certainly not enough to compensate for the expense involved, which, according to estimates from reliable publicity firms, would range from \$3,000 to \$10,000 for a consecutive campaign. The reaction of two of the great daily papers of the State was distinctly discouraging, even to occasional work of this kind, on the theory that it would be more likely to produce harm than good.

We feel that the American Medical Association is doing the best that can be done in this direction, in publishing *Hygeia*, "the Journal of Individual and Community Health"; and we would urge that more can be accomplished by us as a Society to instruct the public and win them back to a sense of the dignity, sincerity and usefulness of the medical profession in the treatment of disease and in promotion of the public health and protection of the people against sham and quackery, by endorsing *Hygeia* and making individual effort to disseminate it throughout the State.

In 1910 this Committee suggested the necessity for diagnostic laboratories to be located throughout the State, especially in counties where such advantages were least available, and we prepared a tentative map based upon county populations, which was published with the report. This report was approved, but no further action was taken, and the matter has rested ever since. In the present state of medical education, the demand for such laboratories has greatly increased. Younger graduates are depending much upon laboratory findings; and one of the detriments to rural practice for them is found in the fact that they cannot have the aids to diagnosis which are not only indispensable to the scientific study of their cases, but also necessary for proper treatment. We urge, therefore, again, that active steps be taken looking toward the establishment of such laboratories in localities where they are needed, feeling confident that such action would go far toward attracting good doctors who love the country, and at the same time, prove a blessing to their patients.

During the year we have surveyed the country to ascertain the activities of the Committees on Public Health of the State and Territorial Medical Societies. Thirty-four States and Territories responded to our circular letter—all of them cordially, and most of them expressing lively interest in the matter. From these communica-

tions it is manifest that the whole profession of the country is keenly alive, not only to the needs of the people, but also to the imminent menace of the various "cults" to the public weal and the tendency on the part of the laity to discredit medicine. We beg herewith to express our thanks to the Chairmen of these committees for their courtesy, coupled with the hope that some day we may all get together for constructive work on some of the problems which confront the country at large.

Following is a brief abstract of these replies. Public Health Codes have been received from all of the States, excepting North and South Carolina:

STATES HEARD FROM IN REGARD TO PUBLIC HEALTH WORK.

Alabama.—The Medical Association is the State Board of Health, with committee of ten. Their duties are three: (a) Censors; (b) Medical Examiners; (c) Committee on Public Health.

Arkansas.—State Board of Health. Vicious legislation not a serious issue. Chiropractors secured legislation legalizing their practice in the State, but these are not numerous enough to make opposition necessary. Arkansas was the first State to enforce compulsory vaccination for school children. Antis have not developed any considerable strength.

California.—League for Conservation of Public Health, starting with strenuous campaign against anti-health measures.

Connecticut.—Committee on Public Policy and Legislation representing the Society, securing and enforcing legislation. This committee is an active one and has representation in each component county society.

Delaware.—The Medical Society is alive in public health matters, and in close touch with the legislature.

Georgia.—Organization of health committees in every county of the State, including dentists, teachers, women's clubs, educators, etc.

Idaho.—Committee work has been in cooperation with the organization of a State League for the Conservation of Public Health.

Illinois.—Fighting for a new Medical Practice Act.

Indiana.—Information will be sent later.

Iowa.—Field Activities Committee. \$7,500 was voted to carry on the work of the committee.

Kansas.—Committee inert.

Kentucky.—Is studying health problems in the education of school children; rural conditions of delinquent children; the poorly nourished child. Working through allied co-operations, Emphasizes the need for organized community effort.

Louisiana.—The committee members are connected with either the City or State Boards of Health. All work, chiefly lectures, has been done as individuals. Opposed to anti-vivisection bills.

Maine.—Maine Medical Association has interested itself in Maine Plan of Health Activity to co-operate with lay associations. Maine subsidiary of National Tuberculosis Association, enlarged its directory to include representatives from the State Department of Health and the trustees of the State Sanatorium. This enlarged body then extended its activities to include the general lay health activities and changed its title to the Maine Public Health Association. Special divisions for tuberculosis, cancer, child hygiene, public health

nursing, eye disorders, etc. The Association appointed to its committee the men who were already in charge of the work of the Association and the Health Department. Many bodies have representation in the Public Health Association.

Maryland.—Drive was made for better instruction to the public in venereal diseases and one of the suggestions made was to confer with newspaper editors to have them print the names—syphilis, gonorrhoea, as such press prints now diphtheria, smallpox, etc. Educate the public by Schick testing very young children, as to the eradication of diphtheria.

Massachusetts.—Public Health Committee meets once a month. Convocations held open to the public. Arrange lecturers to the District Societies, with list of specialists to draw from.

Michigan.—Society has combined forces with the University extension department and reaches the public by putting speakers into every section of the State, with the idea of letting the people know what the physicians and public health workers have done for the people of the State. Profession has been reticent in placing their accomplishments before the people, thus giving the various "cults and quack-cure-alls" an opportunity to sell their wares to unthinking people. No public health legislation.

Minnesota.—Information will be sent later.

Mississippi.—Society in accord with the public health work of the State. Does not favor such a survey.

Missouri.—Medical health matters receive attention chiefly from State Board of Health and Secretary of State Medical Society. Committee on Public Health is also Committee on Medical Legislation. Makes recommendations at annual meeting of State Society to State Board of Health to encourage certain activities. The committee deals almost entirely with licensure, public health, public health laws, and legislative matters. Active in influencing Legislature regarding various bills affecting public health.

Montana.—The State Board of Health of Montana is the public health committee of the Montana Medical Association. Publishes biennial report and manual for health officers.

Nebraska.—Committee on Public Policy and Legislation, whose duty it is to watch the action of the legislature, and by lectures and publications educate the public. Cancer Week activities. Campaign committee in every county to learn the attitude of aspirants to the legislature. Attitude now not to influence legislation but to advise.

Nevada.—Nothing to report. Best results to be obtained by not saying anything publicly at present.

New Hampshire.—Lost in its fight against the Chiropractors Bill. Forming a plan for a State Public Health Association, enlisting the support of all State organizations. Aid State Board of Health in attempts at legislation. Will oppose the Sheppard-Towner offer and ask for more money for Board of Health. Will propose uniform preliminary requirements in education for those about to study any of the cults. Against State Medicine in any form. Attempts to protect public health looked upon with suspicion by legislators.

New Jersey.—Committee on Public Hygiene and Sanitation presented the following subjects to the Society for consideration and action: Sanitary districts. Pasteurization of milk, soft drinks, midwives, maternal mortality, sanitarium, maternity homes and baby farms.

North Carolina.—Conjoint meeting of the State Board of Health and the State Medical Society, to present to the profession new policies to be inaugurated in public health work, with discussions and voting. Permanent Committee on Public Policy and Legislation. Special public health legislation has been handled by State Board of Health.

North Dakota.—Effort to reorganize State Board of Health and secure a better appropriation for public health work. Legislature passed law making vaccination of any kind non-compulsory.

Ohio.—Committee on Medical Education whose function it is to arrange group meetings for post graduate lectures in co-operation with medical societies. Committee on Public Policy and Legislation, has been active in fighting vicious legislation of all kinds.

Pennsylvania.—Opposed bills Compulsory Health Insurance, Anti-Vivisection, cults and all measures detrimental to the public. Preparing to introduce bill to standardize educational qualifications for those desiring to practice any branch of the healing art.

South Dakota.—No work has been done.

Texas.—Spent much money on public health laws. Every law has originated with the medical profession. Spent several thousand dollars last year trying to perfect the law, but failed through a filibuster. Resolved to quit spending money and let the public come to them.

Utah.—Committee on Public Health and Legislation. Committee on Public Policy and Legislation, active. Will endeavor to amend the practice act. No agitation against vivisection—not an issue.

Washington.—Public Health League of Washington killed anti-vivisection bill in 1921. Defeated a bill by referendum in exempting certain children from examination in school. Kept eye on candidates not sound on health matters. Active in electing certain physicians to the legislature. Working now to obtain equal educational requirements for all who treat sick. Will fight anti-vivisection. Have gained by helping to defeat obnoxious politicians.

West Virginia.—Refers its public health matters to Department of Health.

Wisconsin.—Committee on Health and Education works with Committee on School Hygiene and State Teachers' Association. State Committee working on a plan for lectures for county societies. Working with Teachers' Association on state laws for school sanitation. Committee on Health Legislation worked to defeat a chiropractors' measure. Working for higher standards of education for the chiropractors. Publishing articles on preventive medicine and hygiene in the State Medical Journal.

Wyoming.—Work being done by Public Health Committee.

We believe, from the results of our survey, that the various States of the Union would gladly co-operate in a movement to secure a national standard of pre-medical and medical examinations, together with a Federal law providing that all persons desiring to treat the sick must pass such examinations before having the legal right to do so.

The effect of this would be profound in educating and protecting the public from the dangers of quackery and the many "cults" of the day, while at the same time, it would operate to secure educated intelligence in those proposing to treat the sick and be eminently fair to all the parties concerned. It would have the further effect of establishing comity between all of the States, thus doing away with examinations of physicians desiring to move to another State, before they could legally practice medicine in their new homes. We therefore feel that it would be not unbecoming of the Medical Society of the State of New York if our delegates were

instructed to lay such a proposition before the House of Delegates at the next Annual Meeting of the American Medical Association for their consideration.

Respectfully submitted,

JOSHUA M. VAN COTT,
Chairman.

April 15, 1923.

REPORT OF THE COMMITTEE ON MEDICAL ECONOMICS.

At the meeting of the House of Delegates in 1922 it was recommended that the Committee on Medical Economics should continue its study of the nursing situation and the abuse of medical charities, and continue its studies of the Federal control of community health problems, and should begin a publicity campaign.

At a meeting of the Council held subsequently it was decided that the publicity campaign and the subject of Federal control of community health problems, being properly public health matters, should be referred to the Committee on Public Health.

The subjects of Group Medicine, Health Insurance, Health Centers and Workmen's Accident Compensation Insurance were also included in the work outlined for itself by the Committee on Medical Economics and were approved by the Executive Committee.

1. *Nursing Problems.*—That portion of the report of the Committee on Medical Economics for 1922 which referred to the nursing situation was freely discussed at the meeting of the House of Delegates. It was apparent that there was a general feeling of dissatisfaction regarding the nursing situation and a desire that some plan should be adopted whereby the difficulties might be removed.

Your Committee finds that the nursing situation, like many other problems more or less directly associated with the practice of medicine is in a transitional state. There are many more phases of this subject than the one which we have learned to consider as the most important, nursing the sick. The growth of industrial medicine, the recognition of community health problems and the development of special treatments, especially in the field of physiological therapeutics, have all contributed toward occupations for the nurses and the necessity for broader knowledge and more specialized instruction than it has been the custom to give in nurse training schools. These developments have also increased the expense both for the instruction of nurses in training and the employment of such nurses after graduation.

After study it appears to your Committee that there must ultimately be a distinct division of the nurses, with varying requirements for the training of the several groups. At present the indications are that three main groups will be

evolved by the above mentioned necessities, first, a group specially trained as public health workers, who will receive the largest part of their training in some academic institution, a minimum of time being spent in the actual work in the hospital wards. Second, a group which will, in addition to general hospital training, receive special instruction of a practical character in the necessities of industrial medicine and of the medical and surgical specialties. This group will find its ultimate employment largely in hospitals. And a third group trained along lines of our present general hospital training, who will have immediate care of the sick, especially in the homes.

It is with the last group that we, as practitioners of medicine, will be most intimately in contact, and in the training of which a number of changes must be made. Whether this group will be sub-divided and a portion given instruction merely as trained attendants, appears to your Committee to be a matter for local determination. As we see the situation, different localities in the State require different types of nurses and, therefore, different plans of training. Your Committee is in favor of maintaining a standard of nurse training which will produce superior graduates, but your Committee also recognizes the fact that the maintenance of such high standards under the direction of the State Department of Education adds very materially to the cost of the maintenance of training schools and, therefore, of hospitals. It recommends, therefore, that the State Department of Education be requested to consider the advantages which would result from recognition of groups of hospital training schools which, for economic reasons, elect courses of training which do not coincide with present standards. Assuming that such courses in training would be shorter than those now prescribed by regulation, that the educational requirements for entrance would be less, and that the staff of nurse-teachers would be reduced, your Committee recommends that graduates of such institutions be given the title of Trained Attendant and that they be so recognized and registered by the State.

This would in no way affect the status of the Registered Nurse, who would continue to maintain her present position.*

2. *Abuse of Medical Charities.*—The inquiries of your Committee have found much to be criticised in the individual administration of some of the medical charities throughout the State. These problems are more or less local. In New York City, which, of course, presents the largest field for inquiry, the subject has been completely covered by the work of the Public Health Committee of the New York Academy of

* Since this report was written, Yale University has announced a special course of instruction for nurses. This course provides for instruction along the lines set forth above, with a certain amount of clinical hospital work.

Medicine, which was practically completed in 1920. These findings have been published in pamphlet form and are available. Since 1912 the Associated Out-Patient Clinics of the City of New York has been active in co-operating with the several dispensaries and out-patient departments of hospitals and with the attending physicians in an effort to benefit such services to both physicians and patients.

Your Committee feels that honest efforts are being made to correct existing abuses and intelligently direct activities.

Your Committee has referred to the abuse of medical charities as being a local problem, because of the variety of social conditions which exist throughout the State. In making a general survey of dispensary service throughout the United States, this is much more apparent. First, the nationalities of the residents of a district, second, the grouping of these nationalities, segregating them to a large extent into national groups, and third the nature and character of employment, determine to a large extent the economic conditions relative to medical charities. A fourth factor in this determination is the business sense of the medical groups directing medical charities.

In a general way it may be said that the less the segregation into national groups, the less the demand for medical charities. This means that the more a given community is freed from the traditions of its European origin, and its consequent greater Americanization, the more self-sustaining and independent the community becomes. In this connection our medical charities problems go back to the immigration bureau, where it is possible by judicious direction to prevent the aggregation of one or another nationality within circumscribed districts, thereby simplifying not only this but many other social problems.

We find throughout the Middle West, for example, much of the work which is done in other localities in dispensaries is done by physicians in their own offices. This is made possible by a sliding scale of fees, the patient being charged according to his ability to pay and the minimum fee fixed low enough so that the wage earner may avail himself of the best medical opinion and at the same time avoid becoming an object of medical charity. The details of the ways in which this plan are worked out are too numerous for introduction into this report, but your attention is called to the situation because it would appear that a vast amount of the abuse of medical charities might be corrected by a development of business sense in the physician. It may be added that the cost of medical services throughout certain sections employing systems similar to the above are much below those communities in which large sums of money are spent for the maintenance and administration of dispensaries.

The specific problem coming before your Committee, and one which it has most carefully studied, is that of pay clinics. A pay clinic may or may not be a medical charity, but we include it under this subdivision in this report.

The outstanding example of a pay clinic is that conducted by the Cornell Medical College; though a special pay clinic, the New York Neurological Institute, has existed in New York for some time.

Because it has the backing of a great university and because its activities are participated in by eminent medical men, the Pay Clinic of Cornell University requires the most honest study and criticism. Your Committee, therefore, takes the liberty of presenting a somewhat full report of its activities. This clinic was established in 1921 and issued its first annual report in December, 1922. According to its founders, its purpose was to supply adequate medical service to those of moderate means. As we all know, the very rich and the very poor, especially in New York City, have always received better medical service than that fifty per cent of the population which we choose to designate as "those of moderate means." In order that the services should be restricted to the group for which it was intended, the Cornell University Medical College Clinic divided the public into several groups, which they have designated as Groups "A," "B," "C," "D," "E," and "F." Group A, those who come regularly in the pay clinic group. The income limits for this group is fixed by occupation and the required standard of living, as follows: Single individuals with a yearly income of \$1,100 to \$1,500; family of two with yearly income of \$1,600 to \$2,200; family of three with yearly income of \$1,850 to \$2,500; family of four with yearly income of \$2,300 to \$2,750; family of five and income of \$2,200 to \$3,000. When there are more than five in a family, \$200 yearly was added for each child in both the upper and lower limits. In Group B are those temporarily in the pay clinic group because of unemployment, previous illness or other financial emergency. Group C, those temporarily in the pay clinic group because of unusual expense of the diagnosis or medical care required. Group D, those unable to pay the clinic fee. Group E, unable to pay a private physician. Group F, admitted temporarily for treatment with decision as to payment or classification suspended.

Groups B and C, because of emergency conditions, do not necessarily come within the strict economic limits given for Group A, and hence are only admitted as patients temporarily.

During the ten months in which the Clinic was in operation, 19,615 patients presented themselves for treatment. Of this number 14,577, or 74.3%, were admitted. Of those admitted, 10,202 belonged in Group A; 2,761 bordered on the free dispensary group; 296 were temporarily

eligible; the rating was deferred on 1,198 cases and 120 were not rated. Of those rejected, 5,038, 4,520 belonged in Group D, or those below the pay clinic group; 322 belonged above the pay clinic group; 48 were compensation cases, and 148 were miscellaneous.

In analyzing the grouping of the patients applying for treatment at the Cornell University Pay Clinic, it is probable that, unless the patients are suffering from some form of disease which requires prolonged treatment, the income schedule is too high. Based upon an economic division of expenses, single individuals earning \$1,100 to \$1,800 a year are competent to pay moderate specialists' fees.*

A reduction of these figures would let in a proportion of the 4,520 rejected because they were below that group. If we reduce the yearly income of single individuals a similar reduction would apply to the other four classes, because the increase fixed by the Pay Clinic for the additional members of families is in proper proportion.

It would be interesting to know why 1,198 ratings were deferred and how long they were deferred. It is conceivable, the Dispensary being a part of the Medical College, that a number of these cases were to be held for teaching material. The deferring of rating for this reason would be entirely justifiable, the immediate money loss to the profession being more than compensated by the educational advantages gained. There appears to be no other reason why such a large number should be continued under treatment and not rated.

There are no figures to show whether the larger number of accepted patients were in the upper or lower economic level, but, according to the report, it is the impression of the Registration Department that by far the larger number came near the lower economic level.

One of the phases of rejection which is commented upon by the compilers of the report is that so many more patients had to be refused because they could not afford the dispensary charges than because they could afford private doctors. This would appear in a measure to bear out the criticism made above of the income basis of admission.

The report further states that about fifty per cent of those applying have already received treatment from private physicians. They came to the clinic either because of their inability to meet those expenses or their belief that treatment was inadequate. Twenty-three per cent had no previous medical care.

This would appear to mean that the clinic

* Computation based upon inquiry of one thousand men and women earning within these limits shows expenditures to be: 30% for rent, 35% for food, 15% for clothing and 20% balance for incidentals, including sickness, which in this group averaged approximately 4% (Winter). These figures may be subject to minor changes.

comes into competition with the private practitioner in a certain number of cases and apparently the opinion regarding the adequacy or inadequacy of the treatment being received from the private physician rested wholly with the judgment of the patient. It is unnecessary to comment upon the inability of the patient to decide his condition or the degree of improvement in it.

The patients are charged one dollar for each visit. In addition there are special fees for drugs, X-rays, certain laboratory examinations, operations, etc. This has made the average cost to each patient \$1.57 per visit, and each patient averaged five visits during the past months.

The attending physicians at the clinic have received certain compensation for their work. The professors are excepted and receive no remuneration. At the time of the publication of the report, the medical staff numbered 122 men. Of these, eleven were clinic chiefs and received a regular monthly compensation; the balance were remunerated at a fixed rate for each clinic attended. The compensation of these attending physicians is begun as soon as the period of probation is finished.

Co-operation with private physicians is sought. At the opening of the clinic, communications were sent to the physicians of Greater New York offering such co-operation. A patient sent to the diagnostic clinic is charged \$10.00. This fee includes limited laboratory examinations. X-ray examinations are charged at the regular rates. After the diagnosis has been made and reported to the physician, the patient is returned to the referring doctor. During the past year, 1,360 cases were referred by 824 physicians.

A system of reference to private physicians has been adopted. By this system anyone who applies to the clinic for the name of someone who can treat him privately is given the names of five physicians in whose professional standing the Director of the Clinic has confidence. As far as possible, these five men are residents of the district proximate to the home of the patient. One of the men named is always a Cornell man; the other four are not. No further designation is offered.

In a general way this summarizes the official report of the Clinic and statements made by College officials.

While the Clinic has been adversely criticised by a large number of physicians, especially in Greater New York, it is evident that the purposes of its establishment and development are honestly set forth in the report.

At the present time the clinic is in an experimental stage. If its development proves it to be self-supporting it will be successful, but if it has to be maintained by the procurement of contributions or by endowment, it thereby comes

into unfair competition with practitioners of medicine and its right to continue is questionable.

Your Committee believes that such a clinic, organized as it apparently is as an immense medical group, will necessarily find itself if given time, and while your Committee does not wish to be understood as in any way approving the pay clinic, it recommends that further time be granted before this Society records the position which it will assume.

3. *Group Medicine.*—As you know, the growth of modern medicine developed several groups of physicians around individuals of eminence. These may be regarded as "personal groups" and are normal developments growing out of necessities arising in the personal work of the group leaders. They are necessarily professional and economic successes.

In emulation of these "personal groups," medical men have entered into arrangements by which the several specialties have been gathered together on a co-operative basis, the idea being that the patient thereby gained the advantage of special diagnosis and treatment at a moderate fee, and that the physicians of the group received fees which otherwise would not have come to them. It was an economic arrangement which was, possible, theoretically valuable to both the public and the participating physicians. In some sections of the West these co-operative groups are successful. In New York State, however, your Committee finds that these groups are, as a rule, not operating on a profitable basis. Whatever the cause, a number of the groups have already broken up and there are evidences that co-operative group medicine will soon cease to exist in New York. When the formation of these groups was begun, your Committee considered that they might affect the practice of medicine materially enough to make their criticism necessary. In view of the situation as above outlined, it is apparent that co-operative groups need no criticism.

When, in reference to the Cornell University Pay Clinic, your Committee designated it as an immense medical group, it had in mind a destiny similar to that which is befalling smaller groups.

4. *Health Centers.*—In its 1921 report your Committee discussed the subject of health centers and advised opposition on the part of the Society to their establishment. Since that time your Committee has studied the subject of medical requirements for rural communities and has accumulated considerable data in reference thereto.

On February 14th, 1922, the New York State Council of Rural Social Workers held a meeting at Ithaca, N. Y., at which a resolution was adopted forming a committee for the study of rural health conditions. This resolution included the State Medical Society.

Notice of this meeting and the establishment of this committee was sent to the Secretary of the State Society and referred by the Council to the Committee on Medical Economics.

After investigation your Committee decided that it was wise to be represented, and in a communication to Prof. Dwight Sanderson of the New York State College of Agriculture of Cornell University, agreed to co-operate with this committee in the collection of statistics and formulation of plans of action.

It was considered most desirable that the distinctly medical features to be incorporated in the report of the State Council on Rural Social Work should be directed by the Medical Society of the State of New York. With this end in view, your Committee has participated in the activities of the above mentioned Committee. The wisdom of this course soon became apparent, because the State Department of Health seemingly expected that the findings of this committee would promote its endeavors toward the development of Health Centers. Some of the data which will follow will, therefore, appear as a part of the minutes of the next meeting of the State Council on Rural Social Work. No expense has been assumed in association with this committee, except necessary traveling expenses of the representative of the State Society.

Early in the year the State Department of Health reported that some eighty communities in New York State were in need of resident physicians. By request, the Health Department supplied your Committee on Economics with its list, which had then been reduced to only eighteen communities which were presumably large enough to support physicians. Of these eighteen, six were found to be unable to support a physician; six were already taken care of; the balance were to be investigated.

Investigation demonstrated that these communities would not support a physician and that the medical needs of the populations were met by physicians resident in nearby towns of larger populations. It is probable that in some of these outlying communities some hardship for lack of medical services was suffered during the winter months, when the roads were impassable, but these conditions could not alter the economic conditions which made it impossible for physicians to maintain themselves by year-round residence in these places. The data collected are too detailed for publication in this report, but the non-residence of physicians in those districts described in the list submitted by the State Department of Health did not require the establishment of Health Centers or any other form of State care.

Your Committee finds that there were four hundred physicians practicing in rural communities supporting only one physician. These are not old men, ready to die, as we are fre-

quently informed, but their ages average up with those of physicians generally. Allowing ten years of service for each one of these men, it is apparent that there would be forty changes each year in these isolated communities. This would leave some of the communities temporarily without physicians, but, as indicated above, in referring to those six of the eighteen communities reported by the State Department of Health, these vacancies are frequently promptly filled.

The lack of agreement between the State Department of Health and the representatives of the Medical Society of the State of New York resulted in a hearing called by His Excellency, Alfred E. Smith, Governor of the State of New York, on February 26th, 1923, for the purpose of hearing the various interests on several matters of medical importance.

In that section of the hearing dealing with Health Centers the State Department of Health used St. Lawrence County as an example of the needs of rural districts for medical service under the direction of the Department. The gist of this discussion was that during the past ten years St. Lawrence County had lost a considerable proportion of its rural practitioners. Considered as an isolated statement, this is absolutely true, but an analysis of the situation in the County shows that it presents no argument in favor of the establishment of Health Centers.

The United States census of 1910 reported a population in St. Lawrence County of 89,005. In 1920, the population had dropped to 88,121. Thus the demand for medical service has been slightly reduced.

Between the periods 1910 and 1920, rural conditions have been materially altered in every respect by the building of State roads and the development of the automobile. In 1913 the only State road in St. Lawrence County was an eighteen-mile stretch between Ogdensburg and Canton. Today the County is covered with State roads and most of the County and Town roads have been improved. Notwithstanding these improvements, we find that physicians were distributed in thirty-two localities in 1913, and in thirty-one in 1922. Since 1913 four communities have lost their one practitioner and three communities, which did not have a practitioner, have one now. In 1913 there was a physician at Benson Mines, one at Lawrenceville, one at North Lawrence and one at South Colton. The doctor at Benson Mines became unnecessary when the State road was built between Oswegatchie and Newton Falls. Lawrenceville and North Lawrence lost their doctors, apparently, when the State road went through from Malone to Winthrop; South Colton when the new road went through to Colton.

It will thus be seen that while St. Lawrence County lost sixteen physicians between 1913 and 1922, the loss did not occur in the remotely rural regions, but that the towns supporting three or more physicians lost fifteen out of the sixteen, and that of this number Norwood and Ogdensburg contributed nine.

In 1913 Ogdensburg had a sixty-five-bed hospital. Now its hospital has a capacity of 153 beds, and several small hospitals are scattered about the County.

Actually, St. Lawrence County has moved forward rapidly in the matter of medical service and such service is vastly more available to the rural communities today than it was ten years ago.

The following list shows the distribution of physicians in St. Lawrence County in 1922 as compared with 1913:

	1913	1922
Benson Mines	1	—
Brier Hill	1	1
Canton	9	8
Colton	2	1
Conifer	—	1
De Kalb	1	1
De Peyster	1	1
Edwards	3	2
Gouverneur	9	9
Hammond	1	1
Heuvelton	3	2
Hopkinton	1	1
Lawrenceville	1	—
Lisbon	—	1
Louisville	1	1
Morristown	2	1
Massena	11	10
Morley	1	1
Newton Falls	1	1
Nicholville	1	2
North Lawrence	1	—
Norfolk	1	1
Ogdensburg (State Hosp. excluded)....	24	19
Oswegatchie	—	1
Piercefield	1	1
Parishville	1	1
Pottsdam	10	8
Pyrities	1	1
Rensselaer Falls	1	2
Russel	1	1
South Colton	1	—
West Stockholm	1	1
Winthrop	3	3
Waddington	2	2

The result of the hearing was the appointment of a special committee to report on the several problems discussed. The sub-committee on rural health problems reported as follows:

"At the conference held in Albany on February 26, 1923, the State Health Department presented a series of statistics on the rural health problem in this State.

This Committee, after a comprehensive survey of the question, does not find itself in agreement with the interpretation of the statistics made by the Department of Health.

"It is undoubtedly true that, in a certain small number of outlying rural communities in this State, there is a lack of physicians, particularly in the winter time; but it is doubtful in the extreme if State subsidies would correct the situation in those communities. The number of physicians in a given county is governed by the laws of economics; and any decrease in this number is generally explained by lessened population, lessened morbidity and mortality and the individual physician's ability to care for a greater number of patients than formerly, due to the automobile, the telephone and the increased number of good roads, which latter, moreover, are kept open to a greater extent during the winter months now than in the past. It must not be forgotten, too, that it requires more patients to support a doctor today than it did formerly.

"From these facts, it is evident that the disproportion between the number of physicians in rural centers now and in the past is not as great as a superficial survey of the statistics would seem to indicate. Certainly there is no indication for the adoption of a State subsidy program. In Pennsylvania, where the subsidy plan has been in operation, it has failed completely and the monetary aid granted to the various counties has degenerated into a veritable political 'pork barrel.'

"There is another aspect to the rural health problem in the question of Hospital, nursing and laboratory facilities in country communities. There is no question that for the benefit of public health it is absolutely essential that these facilities exist in number and position to be promptly available in every instance when needed. The list of new hospitals and the contemplated ones mentioned at the conference on February 26 is an indication not only of this need, but also of the fact that it is being met locally, to some extent at least. In the interest of public health, therefore, the State Department of Health should inaugurate an extensive educational campaign to urge the local county authorities to meet their own needs.

"Experience teaches that local control and local support produce the best results in this field; and should isolated instances be found where, for one reason or another, this is not possible, then and only then should subsidy and central control be provided.

"There is no question in the minds of this Committee but that certain communities and districts up-State are now lacking in adequate medical care; and the physicians of the State are as anxious as the State Board of Health to remedy conditions. However, the data collected from the Committee on Economics of the Medical Society of the State of New York varies to such a degree from that submitted by the State Board of Health that, after careful consideration of the problem, we recommend that Your Excellency create a small committee of investigation, the personnel to be drawn partly from the State Board of Health and partly from the membership of the Medical Society of the State of New York. Obviously, the physicians up-State are more intimately acquainted with local conditions and could, therefore, serve best on such a committee."

Your Committee has studied the question of hospital facilities outside of first and second class cities in New York State and finds that the outlying districts are reasonably well cared for and that improvements and enlargements of existing hospitals have been and are being made to meet new requirements. It further finds that new hospitals are being considered in those communities in which there is any reasonable ex-

pectation of their continued and proper maintenance.

As a result of its investigations your Committee advises that in its judgment there is no necessity for the establishment of Health Centers or the participation in any way in the practice of medicine of the State Department of Health. It recommends that the House of Delegates record itself as being opposed to these activities.

5. *Health Insurance.*—The position which your Committee has maintained and which the Society has endorsed, of opposition to compulsory health insurance remains unchanged. While no effort has been made to legislate upon compulsory health insurance, your Committee has followed the subject in its activities in those countries in which it is established with a view of providing itself with additional data to meet any subsequent efforts which may be made towards its establishment in New York State.

In a general way it may be stated that in those countries in which political conditions are such as to enable its study, your Committee finds that the medical profession, and consequently the public, is not satisfied with the progress made. From an economic standpoint the whole subject of social insurance, of which health insurance is a part, appears to be becoming unstable. This is especially true where old age and disability pensions form a part of the system.

In the United States, voluntary health insurance of groups of employees has grown considerably in the past year. This insurance is placed without physical examination and the continued solvency of the plans is assured by actuarial statistics. Several insurance companies are writing this type of insurance and the premiums are usually divided between the employer and employee. The cost of such insurance is the same for all beneficiaries between certain ages, the individual age not being considered.

The benefits are reckoned either as a flat weekly sum or as a percentage (not exceeding two-thirds) of the weekly wage. In general the benefit begins with the eighth day and runs twenty-six weeks, though, of course, any scheme of benefits desired may be adopted so long as the gross amount does not exceed \$40.00 weekly. The premiums vary with the benefits and are higher when there is a large percentage of women in the group. Roughly speaking, the cost is approximately one dollar a month for each ten dollars of weekly benefit.

As this voluntary insurance has no direct relation with medical service, this information is merely furnished as such and no recommendations are offered.

Old age and disability pension schemes have been in operation in industries for a number of years. It is now apparent from a study of a

number of them in which the pension age is being reached by a large percentage of those originally entering the fund that the plans were fundamentally financially unsound.

It is being found necessary to re-organize many of these funds on a sound basis because it is obvious that their liabilities will ultimately become greater than the combined capitalization and business of the companies which organized them.

One of the large insurance companies has worked out a scheme by which old age pensions may be successfully operated, but, as your Committee sees it, such a plan is only feasible because of the profits from the other forms of insurance in which the company is engaged, the pension scheme being administered practically at cost. These data are introduced to show the impracticability of compulsory social insurance schemes which have been presented to the legislatures of preceding years, and to point out the hopeless burden which would have been put upon the tax-payers of the State in the administration of these schemes.

6. *Workmen's Compensation.*—Your Committee has received numerous complaints relative to the adjustment of medical fees by the Workmen's Compensation Bureau of the State Department of Labor. Considered in relation to the vast number of claims paid, these complaints have, however, been few.

Those complaints which were made because the insurance carriers claimed that the procedures adopted by the physicians in charge of the cases were unnecessary, appear to your Committee as requiring more consideration than those in which the controversy arose merely over the individual charges made. It appears to your Committee that the physician in charge is the best judge of the treatment required and that some action should be taken by this Society to record itself as opposed to the medical representative of the insurance carrier or of the Workmen's Compensation Bureau deciding upon this feature of disagreement. We recommend, therefore, that the Committee on Medical Economics be directed to confer with the State Department of Labor and with the insurance companies and be empowered to state that the Medical Society of the State of New York is opposed to such procedure and desires that agreement between the parties interested should be reached, and the practice abolished.

Respectfully submitted,

J. RICHARD KEVIN,
EDWIN MACD. STANTON,
GEORGE W. KOSMAK,
WILLIAM H. PURDY,
HENRY LYLE WINTER, *Chairman.*

May 1, 1923.

REPORT OF THE COMMITTEE ON LEGISLATION.*

To the House of Delegates:

This past year has been more active than any previous year in the matter of medical legislation to which your Committee on Legislation and your Legislative Bureau has been obliged to give attention.

At no time in the history of the State Society has there been such a mass of legislation of pernicious type which has sought to take individual thought, initiative and personal practice from the hands of the physician himself and place it under group jurisdiction.

Welfare bills with no logical reasoning to warrant them, have flooded the legislative halls, and have been supported by the various groups of previous years, interested because of commercialism, professional vanity, immature thought or desire to seek political prestige; while in some bills there have been predicated real questions of decision which the House of Delegates must pass upon at the next meeting.

There is a gradual increase in strength displayed by the various cults, individually and co-operatively, to force upon the State mandatory thought of drugless healing. To meet this there can only be the demand on the part of the medical profession and lay people, that whosoever would practice the healing art in any form or type must be grounded in the rudiments and sciences of the actions of the human body as have been evolved gradually through the studies and conclusions of the correlated teachings of chemistry, physiology, anatomy, etc.

The work of the years to come on the part of physicians and educators in our colleges must be directed toward shaping the minds of the people in accordance with these precepts.

There is the same apathy in certain sections of the State in giving the active support so necessary to a Bureau of this nature; and this Bureau has not heard from the County Legislative Chairmen in the same clear cut decisions of situations presented this year, as was evinced last year; nor by answers to the questions sent out. If the Medical Society is to maintain its close touch on public health and questions pertaining to the individual lay person, who thinks not for himself or herself but leaves it to the judgment of the doctor without expressing an opinion until asked, then there must be greater co-operation on the part of the County Legislative Chairmen with the Committee on Legislation.

The individual physician must be aroused in order that he may benefit personally, and that his own people may hear from his lips that which is best for the community.

Your committee on Legislation has followed during the past year, the theory upon which the

* This is only a preliminary report as the Legislature does not adjourn until May 4th.

Bureau was founded, believing that the greatest impression is made upon the legislator by the physicians and laymen in his own community, for it has found that the task of interviewing all of the legislators, (in number, 201, to say nothing of outside influences), is one too great for one or two men to perform within the legislative halls, and to give such time as is necessary personally, even in meagre interviews, to say nothing of maintaining the Bureau for the dissemination of information and knowledge to the individual County Medical Society and its constituency. This latter is all that can be asked of one or two individuals unless they rob themselves too greatly by neglecting their own personal practice.

It is not right that this should occur and plans of other type must be made for the future to combat the increasing amount of legislation.

The laws of action and reaction enter into the problem and now that the members of the State Society are asked to lend their support "for" or "against" more and more bills, this axiom must be recognized. Some of these bills should never have come within the scope of a legislative committee, but having the backing of groups of more or less political power, now demand our attention.

The Bureau has been conducted as economically as was possible, but some means must be devised for transmitting to the individual physicians in the State and even to laymen and associations rightly interested in proper legislation, daily or weekly information during the legislative session.

The cults spend their funds valorously in flagrant advertising and in other ways which ill befit a "profession" of any sort.

The question then arises how shall information be disseminated, and this your Committee offers as a suggestion for discussion in the meeting of the House of Delegates.

RESUMÉ OF ACTIVITIES OF LEGISLATIVE BUREAU.

In July, and again early in September, and again in October, letters were sent to the County Legislative Chairmen asking that they interview the candidates for the legislature, and requesting that all information gathered be forwarded to the Bureau that the files might be prepared accurately for use during the session. To all communications, the average percentage of replies was 50 per cent. Does this satisfy us as members of our County Society or State Society?

This only emphasizes that County Societies must exercise their shrewdest judgment in the selection of an active physician as their County Legislative Chairman.

At a meeting of the Council held November 14, 1922 in New York City, your Committee on Legislation was granted power to call together the Legislative Chairmen of the County

Medical Societies in the State, to discuss a legislative program for the legislative session of 1923. Money was appropriated by the Council to pay the railroad fares of the County Legislative Chairmen and an allowance was granted of five dollars per day for hotel expenses during the conference.

Your committee, therefor, called the County Legislative Chairmen in conference at Syracuse, December 2, 1922.

Thirty-five counties were represented at this conference. It was indeed a success. For the first time in the history of the State Society, a definite legislative program was formulated to guide your Committee on Legislation.

During the fall and early winter the Chairman of your Committee on Legislation was called upon several times to attend County Society meetings, and also to attend several District Branch meetings and was requested to speak on legislative matters. Much time was expended traveling to these meetings, some in distant parts of the State, at times taking two or more days away from headquarters, to say nothing of the personal inconvenience.

On January 3rd, fifty-eight form letters were sent to County Medical Society secretaries, asking that they forward the correct names and addresses of their County Society officers to the Legislative Bureau. This information was a necessity because of the elections taking place in the winter months. Forty-six replies were received.

As soon as the Senate and Assembly committees were named, Public Health, Public Education, Codes and others, letters were sent to the County Legislative Chairmen asking that in their various Counties they interview these members personally and establish relationships along the lines suggested in the conference at Syracuse.

On January 10, bulletins were commenced and were issued weekly up to March 24th. With the first bulletin, lists were enclosed of the standing committees of both Senate and Assembly. In all, to date, thirteen bulletins have been issued and five special notices.

February 26th, the Governor, Hon. Alfred E. Smith, called to a conference the officers of the State Medical Society, the Presidents and Legislative Chairmen of County Medical Societies, representatives of the State Department of Health, representatives of the State Education Department, and others interested in health, narcotic and civic problems, for the purpose of concentrating upon the solution of health, narcotic and medical problems now confronting the State.

The questions discussed were "Rural Health Problem," "Medical Education," "Medical Research," "Medical Practice Act" and "Narcotic Drug Problem."

At the close of the conference, Governor Smith

appointed a committee of fourteen physicians to advise him as to the best solution of these problems, and to report back to him not later than March 10th. The report of this committee has been printed in the bulletins and in the State Society Journal.

Upon receipt of the report, the Governor sent a special message to the Legislature, somewhat along the lines of the report, and suggested that it give these questions its earnest consideration and favorable action. As a result—Assembly Bills Int. No. 1741 and Int. 1835 were introduced shortly after this message.

Early in March, the Chairman of your Committee on Legislation suffered several weeks' illness and was ordered away for a complete rest as soon as able to travel. The bulletins were issued up to March 24th, when they were discontinued for a period of two weeks, during the absence of your Chairman, and because of a temporary lull in legislation.

In the absence of your Chairman, Dr. James F. Rooney, resident member of the Advisory Committee on Legislation, took up the active work of the Legislative Bureau, and appeared at hearings, etc., on the bills which required our attention.

Your Chairman, although not fully recovered, returned to the city on April 6th and again took up the legislative work on April 12th. Immediately upon his return a "special notice" was sent to all County Society Legislative Chairmen and to Presidents of County Societies, informing them of the more important phases of legislation at that time, and asking that they take immediate action upon the same. April 12th, telegrams were sent to many doctors throughout the State, urging that they give their aid to matters which were of vital importance. From the information which came into the Bureau soon after that, we felt quite sure that the vast majority of those so urged, had complied with our requests, although very few direct replies were received.

The Chairman of your Committee on Legislation has spent an average of from twelve to fifteen hours each week (except during illness) at the Legislative Bureau during the legislative session, preparing briefs, answering correspondence and going over general routine work of the Bureau, as well as giving much time and thought to cult propoganda obtained by the Bureau. A number of hours each week was spent at the Capitol interviewing legislators, appearing at hearings, etc. Much of this time was fruitless in trying to get in personal touch with many of the legislators, hence County Legislative Chairmen must realize that in most instances the Chairman of your Committee on Legislation has not been able to interview personally your own representative.

In the Senate, fifty-seven bills were recorded during its session, up to April 30.

In the Assembly, eighty-five bills were recorded during its session up to April 30.

On any and all bills which might in the least be construed as pertaining to the medical profession or in the interest of Public Health, digests were prepared for the bulletins and close watch was kept through daily following on the calendars. Letters were written to the introducers of bills, to the members of the committees to which bills were referred, as well as to the County Legislative Chairmen concerning these bills and briefs were filed in opposition to or in favor of many bills.

Hearings were attended by the Chairman of your Committee on Legislation and by the members of the Committee on Legislation, and by Dr. James F. Rooney, former President of the State Society, a resident member of the Advisory Committee on Legislation.

There is a growing sentiment against the medical profession on the part of those who are opposed to any and all limitations of the healing art, excepting their own individual cult wherein they desire those now engaged in such practice to be licensed and recognized by the State, and demanding that future aspirants in this or that cult shall be licensed by their own members, irrespective of the rights of others or in co-operation with them.

In the judgment of your committee there are some members of the legislature who consistently appear or vote in opposition to any legislation proposed by or affecting the Medical Society, or its members. While we can only judge these legislators through what we hear or know in their actions, and some may have their honest convictions, there are instances which may be cited in which it is to be surmised they look more toward their political aspirations, or other objectives, than to the health and welfare of the people they represent.

The State Society must realize that it has no friendship for Assemblyman Burton D. Esmond of Saratoga County, who has consistently opposed the legislation desired by it, and has stood willing to further cult practices through his actions and words at committee hearings and on the floor of the legislative halls.

This year Assemblyman Peter A. Leininger, of Queens County, was the introducer of the New York State Chiropractic Society bill; and Assemblyman Thomas F. Burchill of 3rd dist., New York County, introduced the Drugless Practitioner's Society Bill, of exceedingly low grade, which would have admitted to practice many of inferior type, without even a common school education, to say nothing of training in the higher branches and in professional lines.

It was widely advertised by the chiropractors that Senator D. H. Ames of the 51st. Senatorial Dist., composed of Chautauqua and Cattaraugus

Counties, would introduce their bill in the Senate, but we are happy to say that such did not occur, and that his better thoughts must have triumphed in behalf of the protection of the health of the people.

Your Committee has been unable to fathom the apathy expressed by Senator Daniel J. Carroll, of Kings County, in not having his committee act promptly upon any bills, especially our own, until it almost seemed too late.

We should be amiss did we not give our thanks to those of the Senators and Assemblymen who have aided us in many and various ways in our honest efforts; especially do we thank Senators Allen J. Bloomfield, William L. Love, Henry G. Schackno, Walter W. Westall, Homer A. E. Dick, and to Assemblymen Eberly Hutchinson, Edwin J. Carpenter, Julian C. Smith, C. P. Miller, Thos. A. McWhinney, J. A. McGinnies, C. T. Male, Sanford G. Lyon, Robert R. Livingston, Frank H. Lattin, and many others.

Many, however, have undoubtedly rendered service whose names have not been brought to our attention, and to these unknown we give our grateful appreciation. This is the only remuneration a Medical Society can ethically accord to a legislator and is the highest reward we can inscribe.

Again this year, Assemblyman Lattin has been the one to whom your Committee on Legislation has turned for aid, for help and for advice; he has not had the whole-hearted support of the profession and his task has been an arduous one, for it cannot be expected that with his many other duties and as a representative of the people at large, he could undertake the advancing of our legislation without proper political support. For that which he has done in the interests of the State Society, we give him thanks.

To Senator Allen J. Bloomfield, as in the past, we extend our hearty thanks for his cordial interest and co-operation in the care of the health of the people of this State.

To Senator William Lathrop Love, a physician, serving his first term in the legislature, we give our grateful appreciation for he has shown his unflinching interest and desire to forward all types of rightful legislation affecting public health.

We must also, as in the years past, pay our sincere respects to Dr. Augustus S. Downing, for his fairness, good judgment, and earnest desire ever to advance the educational angle of the care of the public health.

To Dr. Mathias Nicoll, Jr., of the State Department of Health, who has appeared at hearings, etc., in unison with the profession, we give our hearty appreciation.

To Dr. William D. Cutter, secretary of the State Board of Medical Examiners, we offer our sincere thanks for his ever-ready co-operation and unflinching aid.

To Mr. Robert Oliver, counsel for the State Society, we give our thanks, as we have ever found him ready and willing to assist us in matters needing legal advice.

The Committee on Legislation also desires to thank its Advisory Committee composed of Dr. William D. Alsever of Syracuse, Dr. Daniel S. Dougherty of New York City, and Dr. James F. Rooney of Albany, N. Y., for their hearty co-operation on all legislation under consideration during this session.

It was intended to have five members on the Advisory Committee but there was difficulty in selecting more than three, as there seems to be an apathy on the part of certain sections of the State. We hope that the next Committee on Legislation will be able to have the five members so that greater strength may be added to the work.

We also desire to thank the officers of the State Society and the Executive Committee, and the Council of the State Society for the aid given to the Committee on Legislation during the past year.

And to the Governor, Hon. Alfred E. Smith, we owe a great debt of thanks for the excellent and efficient manner in which he faces the important problems of public health. Calling a conference as he did, not only gives the profession an opportunity to voice their opinions, but also places before the Governor the best possible advice on matters pertaining to physicians and their duties toward the public health.

We are also indebted to many of the County Medical Societies for the publishing of weekly information at their own labor and expense. We would like to see more of the County Societies follow the same procedure.

We have endeavored in this report to bring the attention of each individual member of the Society to the vast amount of work necessary for his protection and for the protection of the public health.

As the second year closes since the formation of the Bureau, your Committee on Legislation pays its compliments and thanks to the Chairmen of Legislative Committees of County Societies, and to the officials and individual members of the County Societies, for their efficient work shown in so many sections of the State, and to a large number of laymen and lay societies who have enlisted themselves in seeing to it that the people be protected from charlatanism and quackery.

Respectfully submitted.

JAMES N. VANDER VEER,
FRANK D. JENNINGS,
W. WARREN BRITT.

May 1, 1923.

Your Committee on Legislation respectfully offers the following recommendations to the House of Delegates:

(1) We recommend that the Bureau again be continued, even though into its hands may be placed a larger sum of money to disseminate information more broadly to the members of the Society throughout the State. This, of course, can only be worked out in co-operation with the Council.

The maintenance and running cost of the Bureau for this year, has been slightly less than last year, namely about thirty-five cents per capita of membership in the society.

This is no criterion, for more ground has been covered this year than last year, and more effectively, thus showing what a united effort can do.

However, it can be readily seen, that the freedom allowed the Bureau in finances, has not been abused, since there was appropriated \$5,000.00 for running expenses, and roughly estimated to date, May 1st, our expenses have been but \$2,900.00; this amount being less than last year at the same date; and all bills paid.

We recommend that the sum of \$5,000.00 or thereabouts again be appropriated for the use of the new Committee on Legislation, and that the House of Delegates call upon the Council to appropriate more as needs may come up, although the power rests with the Council and Executive Committee.

During the past year in cordial co-operation, the Council has never questioned the wishes of the Committee on Legislation; nevertheless, legislation is now assuming such form as may call at any time for quick action of expensive type, and it is to give the Committee on Legislation a broad leeway that recommendation of this sum of money is made.

The cults and other societies are expending vast sums of money raised by taxation on their members who willingly pay in the hope that material advantage will accrue to their efforts.

By giving great latitude as in the past to your Committee on Legislation, their hopes may continue to be thwarted.

(2) We recommend that some means of educating the public through the public press be instituted through the co-operation of the Committee on Legislation, the Committee on Medical Economics, and the Committee on Public Health and Medical Education.

With the demand on the part of many members of the State Society that the dues be raised sufficient to provide funds for really placing information in the hands of the individual members, there would seem to be no limit to which these three committees might rightfully go. The proverb that "knowledge is power" cannot be better shown than in education of the public as

to what is right and best in regard to their own and to the public health.

(3) The success of the conference of County Legislative Chairmen and officers of the State Society at Syracuse, warrants that at least one such meeting, and better, that two or three meetings of like character be held during the coming year. Again, provision should be made for paying the expenses of such a meeting, but instead of a separate appropriation as was given last year, it should be included in the budget for the ensuing year.

(4) Provision should be made that the Chairman of your Committee on Legislation and the members thereof, be allowed to attend meetings and conferences of medical men throughout the State when so requested by representative groups of medical men, at the expense of their own appropriation.

The avidity with which the various societies sought verbal information and the cordiality given to the members of your Committee on Legislation by the groups visited this past year, warrants this recommendation.

It would be wise to empower the sending of a representative to a meeting of State Legislative Chairmen, or groupings of the same, should such a meeting be called, and that funds be appropriated therefor, to send such representative, or allowance be given to pay the same from the Committee's appropriation.

Your Committee on Legislation is pleased beyond measure to inform the Society that no fewer than eight States have adopted and followed out the plans and procedures in matters of legislation of this, our Medical Society of the State of New York, in the types of legislative committees constructed, manner of approaching legislative questions, and especially, in the types of bulletins sent to their own individual State members and to the States at large.

Such actions denote a beginning unification if ideas and laws, and the time may now be ripe for this State Society to inaugurate a group meeting in this section of the United States.

Inasmuch as the Legislative Bureau has been in cordial co-operation with the Bureau of Legal Medicine and Legislation of the American Medical Association, we believe that greater cohesion of the States can be accomplished to the betterment of our own State.

(5) We have not been hampered with members appearing at hearings unofficially, nor have we had requests from physicians who desired to appear "for" or "against" measures, with their own personal views. This would seem to speak well for the manner in which the various County Societies have approached the questions put to them by the Committee on Legislation, and have thrashed out the complex problems within their own body and in the American manner of the rule of the majority.

Your Committee on Legislation recommends that the same rule be adopted for the ensuing year, letting it be known, however, that there will be no restriction of free speech, but that no one shall appear and falsely represent himself as the exponent of a group to which he attributes greater weight of thought than the combined opinion of the organized profession of this State, when in reality his group is minimal in number.

(6) We recommend that the House of Delegates take up the strengthening of organization within the County Societies and urge the County Societies to greater effort, even to the appropriation of their own funds for public dissemination of knowledge, and thus allow their officers to come in closer touch with the members and with the lay community.

It is a crying need that the public be better informed, and the manner in which this can be brought about should be studied by the Council, the House of Delegates, and by the State Society officials in conjunction with the officers and members of the County Societies.

(7) We recommend that, during the summer, bills be drawn which are intended for introduction at the next session of the legislature, as was attempted in a small measure during this past year; so that we may not have to meet suddenly important questions which spring up, but by this may show that we are ready with the proper alternative drawn along the lines of our basic thoughts in relation to the practice of the healing art.

(8) In line with the 7th recommendation, we recommend that the Society through its House of Delegates or accredited committees thereof, pass upon the following questions for the purpose of guiding the Committee on Legislation for the ensuing year:

(a) What is the attitude of the State Society toward the State's acceptance of the Sheppard-Towner Act of Congress?

(b) What is the attitude of the State Society toward the Birth Control measure?

(c) Shall the State Society draw up its own Health Center Bill?

(d) What is the attitude of the State Society toward Health Insurance?

(e) What is the attitude of the State Society toward the Narcotic Problem?

(f) What is the attitude of the State Society toward Medical Inspection in Schools?

(g) What is the attitude of the State Society toward the present Workmen's Compensation Law?

(h) What is the attitude of the State Society toward Anti-Vivisection measures?

(i) What is the attitude of the State Society toward Child Experimentation measures?

(j) What is the attitude of the State Society toward Cult Practice?

(k) What is the attitude of the State Society toward Medical Education?

(1) What should be the attitude of the State Society in relation to a general bill which may appear empowering County Judges to appoint medical consultants for their Counties, similar to the bill recently vetoed by the Governor, relative to Kings County?

(m) What is the attitude of the State Society toward the placing of State institutions under the direct control of the Health Commissioner of the State, rather than under their separate lay boards as now exists?

These measures have come to the front in the legislature of this past session, and must be met by the Society as a whole, and therefor should be decided in the House of Delegates, that your Committee on Legislation may have the sentiment of the Society as expressed from the floor of the House.

(9) We recommend that the following questions be incorporated into bills to be introduced at the next session of the legislature:

(a) A bill similar to Assembly Print Number 2343, of this year, transferring the civil prosecution of illegal practitioners of medicine from the District Attorneys of the individual Counties and placing the same in the hands of the State Attorney General.

(b) A bill which would give equal rights to the physician, as has now the undertaker, in relation to the recovery of remuneration for services, from the estate of a deceased person, or from funds received in payment of damages to the patient. Under the present law, the undertaker alone has preference in collecting his bill.

Respectfully submitted.

JAMES N. VANDER VEER,
FRANK D. JENNINGS,
W. WARREN BRITT.

May 1, 1923.

PRINCIPLES OF PROFESSIONAL CONDUCT OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

PREFACE.

This revision, entitled the PRINCIPLES OF PROFESSIONAL CONDUCT OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK, defines the duties of physicians to the profession, to the patient, and to the public, without regard to penalties for any infraction thereof. The various County Societies are charged with the duty of carrying out these Principles and deciding the degree of discipline for those found guilty of unprofessional conduct. All such cases should be investigated by the Boards of Censors, or Committees on Discipline of the County Societies, in order to determine the underlying motive, habit or intention of those accused. The reports, recommendations or decisions of the Boards or Committees should express full justice to those who are guilty and mercy to the innocent offenders. This

procedure should be used for the purpose of raising the ethical standard of the practice of medicine in the several Counties of the State.

The Oath as administered by Hippocrates at the Island of Cos, Asia Minor, to his students in the fifth century B. C. is added as appendix number one. At the present time this oath, or a modification of it, is administered to the graduates of the majority of the Medical Colleges of this State.

The Legal Principles are added as appendix number two. They were prepared by Mr. George W. Whiteside, the counsel of the Society, at the request of the committee. They are useful in showing the legal responsibility that is assumed by all who practice medicine in this State, either as licensed physicians or otherwise. These Legal Principles are based upon statute and case law, and should be in the possession of all physicians as a *vade mecum*.

E. ELIOT HARRIS, M.D., *Chairman*,
SAMUEL A. BROWN, M.D.,
WILLIAM DARRACH, M.D.,
GRANT C. MADILL, M.D.,
WALTER L. NILES, M.D.,
GEORGE D. STEWART, M.D.,
HENRY LYLE WINTER, M.D.,

THE PRINCIPLES OF PROFESSIONAL CONDUCT.

THE DUTIES OF PHYSICIANS.

Honor of the Profession.

Section 1. Everyone on entering the medical profession and thereby becoming entitled to full professional fellowship, incurs an obligation to advance the science and art of medicine, to guard and uphold its high standard of honor, to conform to the principles of professional conduct and to comport himself as a gentleman.

Purpose of Medical Society.

Section 2. Every physician should identify himself with the organized body of his profession as represented by the Medical Society of the State of New York and its constituent county medical societies. These societies are the chief element of strength in the organization of the profession and should be made instruments for the cultivation of fellowship, for the advancement of the science of medicine, for the dissemination of medical knowledge, for the maintenance of ethical standards and for the promotion in general of the interests of the profession and the welfare of the public.

High Moral Standard.

Section 3. The Medical Profession exacts from its members the highest type of character and morals, and to attain such a standard is a duty every physician owes alike to the profession and to the public. It is incumbent on physicians to be temperate in all things, for the practice of medicine requires the unremitting exercise of a clear and vigorous mind.

Duty to the Sick.

Section 4. Physicians should not only be ever ready to respond to the calls of the sick and the injured, but should be mindful of the high character of their mission and of the responsibilities they incur in the discharge of their professional duties. In their ministrations they should never forget that the health and the lives of those entrusted to their care depend on skill and attention. Physicians should endeavor to add to the comfort of the sick by making their regular visits as nearly as possible at the hour indicated to the patient.

Guarding the Patient's Confidence.

Section 5. Every patient should be treated with attention and consideration, and the confidences which physicians receive should be guarded with the most scrupulous fidelity and honor. The obligation extends beyond the period of professional services; none of the privacies of individual or domestic life, no infirmity of disposition or flaw of character observed during medical attendance, should ever be divulged by physicians, except when required by statute law or by the courts.

Timely Warning to Patient's Family.

Section 6. The physician should be a minister of hope and comfort to the sick; however, he should not fail to give timely notice of dangerous manifestations to the family or friends of the patient; and also to the patient, when necessary.

Care of the Incurable.

Section 7. The attending physician should not discontinue the care of a patient because deemed incurable, for his continued attention may be highly useful in alleviating pain or anguish.

Correcting Self-Indulgences of Patients.

Section 8. The opportunity which a physician has of correcting self-indulgences of patients ought never to be neglected. Constructive advice, if tactfully offered and accompanied by a sincere interest in the welfare of the patient, will often be followed by a good result.

Consultations.

Section 9. Physicians should request consultations in perplexing cases, and the attending physician should consent to a consultation when desired by the patient or his representative.

Punctuality in Consultation.

Section 10. The utmost punctuality should be observed by physicians in meeting for consultation; only a rare emergency should interfere with such an engagement.

Conduct in Consultations.

Section 11. In consultations no insincerity, rivalry or envy should be indulged. All due respect should be

observed toward the physician in charge of the case and no statement or remark should be made which would unjustly impair the confidence reposed in him.

Statement to Patients After Consultation.

Section 12. All statements of the case to the patient or his representative should take place in the presence of all the physicians consulting, except as otherwise agreed; no opinions should be delivered which are not the result of concurrence.

Varying the Treatment After Consultations.

Section 13. No decision should restrain the attending physician from making such subsequent variations in the treatment as any unexpected change in the character of the case may require, but at the next consultation reasons for the variations should be stated. The same privilege, with its obligation, belongs to the consultant when sent for in an emergency during the absence of the attending physician. The attending physician, at any time, may prescribe for the patient; the consultant only in a case of emergency.

Disagreement in Consultation.

Section 14. It may happen that the attending physician and the consultant cannot agree in their views of the case or of the treatment to be pursued; in the event of such disagreement another consultant should be called.

Consultant not to Take the Case.

Section 15. When a physician has been called as a consultant none but the rarest and most exceptional circumstances would justify the consultant in taking charge of the case; he must not do so merely on the solicitation of the patient or friends.

Patients Referred to Specialist.

Section 16. When a patient is referred to a specialist by the attending physician, a statement of the case should be given to the specialist, who should communicate his opinion directly to the attending physician.

Services to Physicians.

Section 17. All practicing physicians and their immediate family dependents are entitled to the gratuitous services of any one or more of the physicians residing near them. When more than one physician is attending another, one of the number should take charge of the case.

Reimbursement for Traveling Expenses.

Section 18. When a physician is summoned from a distance to attend or advise another physician, or his dependents, reimbursement should be made for traveling expenses and loss of time from practice.

Appointment of Substitute.

Section 19. Whenever a physician requests another physician to attend his patients during his temporary absence from his practice, professional courtesy re-

quires the acceptance of such appointment if consistent with his other duties. The physician acting under such an appointment should give the utmost consideration to the interests and reputation of the absent physician. All such patients should be restored to the care of the latter upon his return.

Social Intercourse With Patients of Others.

Section 20. The Physician, in his social intercourse with a patient under the care of another physician, should observe the strictest caution and reserve. No inquiries should be made by him relative to the nature of the treatment employed.

Visiting Another Physician's Case.

Section 21. A physician called to visit a patient, who has recently been under the care of another physician in the same illness, should not take charge of, nor prescribe for such patient except in a case of urgency as hereinafter provided, or when the physician has relinquished the case, or when the patient has notified such physician to discontinue his services.

When Several Physicians Are Called.

Section 22. In cases of sudden illness or accidents when several physicians are summoned, the physicians acting in such emergency should request that the family physician be called, and upon his arrival should withdraw in his favor.

The Emergency Obstetric Case.

Section 23. When the physician who has been engaged to attend an obstetric case is absent and another is sent for and delivery accomplished, the acting physician is entitled to his professional fee, but should secure the patient's consent to resign on the arrival of the physician engaged.

Difference Between Physicians.

Section 24. Diversity of opinion or opposition of interests may sometimes occasion controversy and even contention. Whenever such instances occur and cannot be adjusted, they should be referred for arbitration, preferably to the Board of Censors of the County Society of which such physicians are members.

Duty in Sustaining Laws.

Section 25. It is the duty of physicians to bear their part in sustaining the laws, institutions and burdens of their community; they should cooperate in the observance and enforcement of sanitary laws and regulations in the interest of public health.

Quarantine and Reporting Communicable Diseases.

Section 26. Physicians should, when indicated, instruct their patients in regard to quarantine regulations and measures for the prevention of communicable diseases; they should report all such diseases under their care to the health authorities as required. During the prevalence of an epidemic it is their duty to face the danger and to continue their labors for the alleviation of suffering, even at the risk of their own lives.

Gratuitous Services.

Section 27. Physicians should always recognize poverty as presenting valid claims for gratuitous services; but endowed institutions, societies for mutual benefit, life insurance, or analogous bodies are not entitled to receive such services.

Compensation.

Section 28. Physicians should deem it a point of honor to adhere, with as much uniformity as the varying circumstances will admit, to the compensation for professional services prevailing in the community in which they practice. They should not dispose of their services by a contract which interferes with the giving of proper medical service to their patients, or which sacrifices their professional standing, or militates against the public good.

Charlatans.

Section 29. Physicians should enlighten the public with respect to the practice of charlatans and the injuries done by them.

Pharmacy.

Section 30. Physicians should recognize and by legitimate patronage promote the profession of Pharmacy, but any pharmacist who, not being a qualified and licensed physician, makes a practice of prescribing for the sick, should not be recognized nor supported. Any druggist or pharmacist who dispenses deteriorated, inferior or adulterated drugs, or who substitutes one remedy for another designated in a prescription, or who fails to follow the given prescription, forfeits all claims to recognition and patronage of physicians and the public.

Advertising.

Section 31. Physicians should not make use of special cards or any other form of advertisement for the purpose of inviting attention to themselves; they should not boast of cases, operations, cures or remedies; nor aid or permit the publication of any of the foregoing in the public prints. They should not invite lay visitors to be present at operations; in the case of a patient's family an exception may be made.

Commission or Bonus.

Section 33. Physicians shall not give, offer or promise to any person who may have recommended, referred or procured for them patients for medical or surgical treatment, any gift, gratuity, commission or bonus, nor shall any physician request, solicit, accept or receive any such gift, gratuity, commission or bonus.

Patents and Rebates on Remedies.

Section 33. Physicians should not hold, nor receive remuneration from, patents for any drug, apparatus, instrument or appliance used in medicine or surgery. They should not receive rebates or commissions from the prescribing of any agent used therapeutically, or from the recommending of patients or the sending of specimens to any laboratory for diagnostic purposes. Physicians should not dispense or promote the use of

secret remedies nor assist unqualified persons to evade legal restrictions governing the practice of medicine.

Guarding the Medical Profession.

Section 34. Every physician should guard and protect the medical profession against the admission of those who are, either in moral character or education, unfit as professional associates.

Reporting Unprofessional Conduct.

Section 36. Physicians should report to the Board of Censors or to the Secretary of the Medical Society of the County any corrupt or dishonest conduct of members of the medical profession.

Groups and Clinics.

Section 37. These Principles of Professional Conduct shall apply to physicians as individuals, or as members of the medical department of hospitals, clinics, colleges, schools, foundations, companies or groups, by whatever name they may be known.

Enforcement of the Principles of Professional Conduct.

Section 38. The various county medical societies through their boards of censors, or by other appropriate means in accordance with their by-laws, shall take cognizance of any breach of professional conduct in their respective counties, and shall apply these Principles of Professional Conduct to any infraction thereof; and furthermore, they shall so function as to procure the observance of the Principles of Professional Conduct by the members of the profession in the several counties of the State.

APPENDIX I.

THE OATH.

I swear by Apollo the physician and Æsculapius and Hygeia and Panacea and all the gods and goddesses that according to my ability and judgment I will keep this Oath and this stipulation—to reckon him who taught me this Art equally dear to me as my parents—to share my substances with him and relieve his necessities if required—to look upon his offspring in the same footing as my own brothers and to teach them this Art if they shall wish to learn it without fee or stipulation—and that by precept, lecture and every other mode of instruction, I will impart a knowledge of the Art to my own sons and those of my teachers and to disciples bound by a stipulation and oath, according to the Law of Medicine, but to none others.

I will follow the system of regimen which according to my ability and judgment I consider for the benefit of my patients and abstain from whatever is deleterious and mischievous. I will give no deadly medicine to any one if asked nor suggest any such counsel; and in like manner I will not give to a woman a pessary to produce abortion. With purity and with holiness I will pass my life and practice my art. I will not cut persons laboring under the stone but will leave this

to be done by men who are practitioners of this work. Into whatever houses I enter, I will go into them for the benefit of the sick and will abstain from every voluntary act of mischief and corruption, and further from the seduction of females or males, of freemen and slaves. Whatever in connection with my professional practice or not in connection with it I see or hear in the life of men which ought not to be spoken of abroad I will not divulge, as reckoning that all such should be kept secret.

While I continue to keep this Oath unviolated, may it be granted to me to enjoy life and the practice of the Art respected by all men in all times. But should I trespass and violate this Oath, may the reverse be my lot.

HIPPOCRATES,
460-357 B. C.

APPENDIX II.

MEDICO-LEGAL PRINCIPLES.

Section 1. A person practices medicine who holds himself out as being able to diagnose, treat, operate or prescribe for any human disease, pain, injury, deformity or physical condition and who shall either offer or undertake by any means or method to diagnose, treat, operate or prescribe for any human disease, pain, injury, deformity or physical condition.

Section 2. Every license to practice medicine shall, before the licensee begins practice thereunder, be registered in a book kept in the clerk's office of the county where such practice is to be carried on.

Section 3. Any physician duly registered in one county may attend isolated cases in another county if not residing or habitually practicing medicine without being registered in such county.

Section 4. The board of regents may revoke the license of a practitioner of medicine or annul his registration or do both when such practitioner is guilty of any fraud or deceit in his practice, is guilty of a crime or misdemeanor, or guilty of any fraud or deceit by which he was admitted to practice, is a habitual drunkard or habitually addicted to the use of morphine, opium, cocaine, or other drugs having similar effect, or who undertakes to procure or perform any criminal abortion or who violates the laws with respect to the use of ways or means for the prevention of conception or for causing unlawful abortion.

Section 5. A person who practices medicine without being lawfully licensed and registered or who so practices after conviction of a felony or who practices or advertises to practice medicine under a name other than his own is guilty of a misdemeanor, and any person who practices medicine under a false or assumed name or who falsely personates another practitioner or former practitioner of a like or different name, is guilty of a felony.

Section 6. A physician is deemed to possess that reasonable degree of learning and skill that is ordinarily possessed by physicians and surgeons in the locality where he practices and which is ordinarily regarded as necessary to qualify him to engage in the business of practicing medicine and surgery. A physician owes a legal duty to his patient to use reasonable care and diligence in the exercise of his skill and the application of his learning to accomplish the purpose for which he was employed and to use his best judgment.

Section 7. A physician is liable for an injury to his patient resulting from want of the requisite knowledge and skill or the omission to exercise reasonable care or the failure to use his best judgment. He is bound to keep abreast of the times, and a departure from approved methods in general use, if it injures the patient, will render him liable, however good his intentions may have been. To render a physician liable there must be a want of ordinary and reasonable care leading to a bad result. This includes not only diagnosis and treatment, but also the giving of proper instructions to his patient in relation to conduct and exercise. Mere error of judgment does not make him liable, provided he does what he thinks is best after careful examination.

Section 8. When a physician engages to attend a patient without limitation of time he cannot cease his visits except first, with the consent of the patient or secondly, upon giving the patient timely notice so that he may employ another doctor, or thirdly, when the condition of the patient is such as no longer to require medical treatment, and of that condition the physician must be the judge at his peril. If the physician's services have been terminated in conformity with these rules he may thereafter refuse treatment of the patient.

Section 9. When a physician is employed to attend upon a sick person his employment continues while the sickness lasts and the relation of physician and surgeon continues unless it is put an end to by the assent of the parties or is revoked by the express dismissal of the physician.

Section 10. Hurried work by a physician whether in a dispensary or with patients treated free or for compensation does not excuse the lack of ordinary care. The obligation of the physician to give instructions to his patient imposes upon the patient the obligation to obey such instructions, and if the patient disobeys such instructions he cannot hold the physician liable for the consequences of such disobedience or neglect.

Section 11. A physician who takes the place of another while he alone is treating the patient exercises his own judgment and his own skill and is an independent contractor and not an agent of the physician whose place he takes and is liable only for his own conduct of the case. When one physician sends

another as his substitute to treat or perform an operation upon a patient and the services of the substitute are accepted, the patient will be presumed to have reposed confidence in the professional capacity of the substitute, not as an agent, but as the principal, and will be taken to have relied upon him as a physician to exercise his own knowledge, skill and discretion.

Section 12. Every human being of adult years and sound mind has a right to determine what shall be done with his own body and a surgeon who performs an operation without his patient's consent commits an assault for which he is liable in damages. This is true except in cases of emergency where the patient is unconscious and where it is necessary to operate before consent can be obtained.

Section 13. Where the patient desires or consents that an operation be performed and unexpected conditions develop or are discovered in the course of the operation, it is the duty of the surgeon in dealing with those conditions to act on his own discretion, making the highest use of his skill and ability to meet the exigencies which confront him, and in the nature of things he must frequently do this without consultation or conference with anyone except perhaps, other members of his profession who are assisting him. Emergencies arise, and when a surgeon is called it is sometimes found that some action must be taken immediately for the preservation of the life and health of the patient, where it is impracticable to obtain the consent of the ailing or injured one or anyone authorized to speak for him. In such event, the surgeon may lawfully and it is his duty to perform such operation as good surgery demands, without such consent.

Section 14. Where a person to be operated upon is a minor or incompetent, the consent of someone legally authorized to give such consent should be obtained. Parents or guardians of minors are persons legally authorized in cases of minors and a committee or guardian in case of an incompetent. This rule is likewise waived in cases of emergency.

Section 15. A physician shall not be allowed to disclose any information which he acquired in attending a patient in a professional capacity and which was necessary to enable him to act in that capacity, unless where the patient is a child under the age of 16, the information so acquired indicates that the patient has been the victim or subject of a crime, in which case the physician may be required to testify fully in relation thereto when such matter is the subject of inquiry. This rule applies even though the physician may be a witness under subpoena, unless the privilege which exists for the benefit of the patient be expressly waived by the patient or be deemed waived by operation of law.

REPORT OF COUNSEL FOR PERIOD FROM MARCH 15, 1922, TO APRIL 1, 1923.

*To the House of Delegates of the Medical Society
of the State of New York:*

During the past year, *i. e.*, from March 15, 1922, to April 1, 1923, your counsel has been engaged in the trial of various malpractice suits brought against the members of the State Society. These cases have arisen in the various counties of the state.

In addition to the usual work involved in the preparation and defense of these cases, your counsel has from time to time conferred with the officers of the Society, the Council, Executive Committee, Legislative and other Committees of the Society, has been consulted by them and has advised them upon various questions which from time to time have arisen. In connection with the advice to the Legislative Committee of the Society, your counsel has reviewed and advised that Committee upon the bills which have been introduced relating to the enforcement of the Medical Practice Act, the revision of the laws governing the examinations and admission to practice of physicians and numerous other bills which by their provisions, either directly or indirectly affect the medical profession.

Your counsel has assisted and advised the Committee on the Revision of Ethics in the preparation of the proposed new Principles of Professional Conduct of the Medical Society which are to be submitted to the Society at this annual meeting.

The advice of your counsel is almost daily sought by individual members of the Society upon legal matters arising in connection with their individual practice. The advice of your counsel has also been sought by officers and committees of various county societies throughout the state upon matters arising in those particular societies both on questions of law and policy.

During the past year it has been gratifying to note that a greater number of the members of the profession have come to a realization of the benefits secured for them in the adoption of the State Society's group plan of insurance. The risks and hazards of medical practice have been more widely appreciated by the members of the Society. The doctors more and more appreciate that irrespective of their experience in the profession or of their standing and skill, either in the general practice or in the specialty in which they engage, or of the results which they have achieved or may achieve in any individual case, that they as a class are peculiarly subject to human ingratitude, oftentimes resulting in malpractice actions against them. When these actions arise they must be defended however unfounded

they may be. When an action is brought it always involves a certain amount of risk, irrespective of the care and skill which the defendant doctor may have brought to bear in the treatment of his patient. This risk is one which has now been lightened by reason of your Society's group plan of insurance.

Table "B" found herein shows that the Society has now a total membership of 9,817. Of this number 3,878 are insured under the group plan as compared with 2,899 insured under the plan for the previous year. In other words, there has been an increase of 979 insured members. Forty per cent of the Society's members are now insured as compared with 31 per cent insured during the previous year. This shows an increase of insured members of 9 per cent. The percentage of members insured is of the whole membership of the Society. These figures are even more gratifying than they appear at first glance when it is considered that a large number of the members of the State Society are not subject to the daily hazards of malpractice actions because of their present connections or retirement. When this number is taken into consideration, the percentage of insured members is increased to about 65 per cent.

Table "A" herein contains a statement of the rates charged for the group plan of insurance of the Medical Society of the State of New York with the Aetna Life Insurance Company. As the plan of insurance was for an experimental period of three years, there of course, has been no change in the rates of premium.

Table "B" (previously referred to) contains an analysis of insurance issued under the Society's physicians' and surgeons' liability group plan showing the number of members in the county societies, the number and percentage insured and the limits of liability for one case and for one policy year in thousands of dollars

Table "C" contained herein comprises an analysis of malpractice cases for the period from March 15, 1922, to April 1, 1923, showing the number of cases pending on March 15, 1922, the number of cases instituted since March 15, 1922, the number of cases disposed of since March 15, 1922. This analysis of the cases does not include the actions instituted against members covered under the group plan of insurance, except the total number of such cases received and disposed of is stated in the Table.

Pages 261 and 262 give an analysis of the facts of the cases that have been instituted since March 15, 1922, as set forth in Table "C," a reading of which will undoubtedly be of interest and show the types of cases which have been instituted and the character of the claims urged by various dissatisfied patients.

GYNECOLOGY AND OBSTETRICS

(1) In this action the defendant was called in to examine the plaintiff, who told him that she was suffering from pains in the abdomen, and that she had slipped and was afraid that she would suffer a miscarriage. The defendant examined her and found that she was two or three months pregnant, that she was not dilated or bleeding, but there was a possibility of miscarriage owing to the fact that she had periodic uterine contractions. The defendant wrote a prescription and also told the plaintiff to put an ice bag on the abdomen and leave it on for half an hour if she should start to bleed. He also advised her to stay in bed until the pains had disappeared. He placed her on a diet of fluids and directed her not to use any laxative. He was not to call again until advised to do so. Very early the next morning the plaintiff's husband came to the defendant's office and told him that the plaintiff was bleeding very badly. The defendant found that all of his instructions had not been followed; that the plaintiff was bleeding, but not abnormally, and that there was no hemorrhage. He made a digital vaginal examination, packed the vagina with iodoform gauze, and instructed the plaintiff to leave the gauze in until he returned later in the morning. Upon his return he found that the plaintiff had pulled the gauze out herself, and he also discovered that the fetus was protruding through the cervix. At that time he was told by the plaintiff's husband that they had called in another physician, who, about this time, arrived, and he curetted the plaintiff. The defendant did not take any part in this except to administer the anæsthetic, and the defendant was told by the plaintiff's husband that he was no longer wanted in the case. The plaintiff now claims damages against the defendant for malpractice and personal injury,

(2) In this action the plaintiff called in the defendant, complaining of a general feeling of prolapse in the abdomen accompanied by pain. She told him that she had a laparotomy performed some twelve years ago, but could not tell him anything about it, and said that since the operation she had had discomfort. The defendant asked her to come to his office for a detailed examination. This she did several weeks later, and upon an examination the defendant found she had a prolapse of the bladder and also a prolapse of the vaginal vault. There was a nodule which defendant suspected was a remnant of the uterus. He advised a plastic operation, which the defendant performed several weeks later in a hospital. Upon the operation he found that the stump of the cervix had a separate pocket with but a pin hole opening, from which came out pus. A crucial incision was made through the pin-head opening in the cervix, it was curetted, thoroughly cleansed and disinfected, and the cavity packed with iodoform gauze. Upon opening the abdomen he found an ulcerated cervical stump, cystocele, degenerated stump of ovary. The defendant removed the stump of the resected ovary, and to relieve the descent of the bladder, a pelvic suspension was performed. At the conclusion of this operation the abdomen was closed and an inspection of the vaginal vault disclosed that the condition was relieved to a very marked degree. Because of the general pus condition nothing further could be done for the prolapsed condition of the vaginal vault. The plaintiff's recovery was uneventful, and there was no evidence of any infection and the plaintiff was discharged from the hospital some weeks later. She came and saw defendant after she left the hospital and said she was feeling very well. Subsequently, she visited the defendant complaining of her prolapse. He suggested for immediate relief a pneumatic ring in the vaginal vault to give it support. She told him she would return, but never did. Defendant also told her that the only way to completely relieve her condition was by closing the vaginal canal. The plaintiff now claims that defendant did not perform the operation as he had promised, and that he failed to remove

TABLE "B"
Analysis of Insurance issued under the Society's Physician's and Surgeon's Liability Group Plan—Showing Number of Members in County Societies, Number and Percentage insured in 1922 and 1923, and Limits of Liability for one case and for one Policy Year in Thousands of Dollars.

Names of Counties	No. of Members in County Society	No. of Members		Percentage Insured																																						
		1922	1923	5/15	5/10	5/10/15	10/10	10/10/15	15/15	15/15/20	20/20	20/20/25	25/25	25/25/30	30/30	30/30/35	35/35	40/40	40/40/50	50/50	50/50/100	75/75	100/100																			
Albany	211	107	124	55	59	83	2																																			
Allegany	37	40	10	26	27	17														5																						
Bronx	592	94	128	19	26	151		1	5	4									4	1				1																		
Broome	49	45	53	50	54	46																																				
Cattaraugus	48	26	27	53	56	12																																				
Cayuga	101	35	32	57	52	15														2																						
Cattaraugus	103	28	29	26	28	7														2	1																					
Chemung	44	33	35	69	80	22		4																																		
Chenango	40	17	16	42	40	12																																				
Clinton	37	22	18	55	49	3																																				
Columbia	41	15	18	35	44																																					
Cortland	26	5	7	15	27																																					
Delaware	12	1	4	05	33	2																																				
Dutchess-Putnam	112	31	34	27	30	6														1				3																		
Essex	736	461	455	61	62	240		151												18				46																		
Franklin	22	13	13	54	59	1																																				
Franklin	48	16	16	32	33	15																																				
Fulton	39	25	24	61	60	3																																				
Genesee	22	8	9	29	41	7																																				
Greene	24	12	13	50	54																																					
Herkimer	57	27	28	48	49	23																																				
Jefferson	76	32	35	43	46	12																																				
Kings	1491	148	359	11	24	234		6	11	7	43	1	1	5	3	1	1	1	2	2	1	1	1	10																		
Lewis	15	5	5	29	33	5																																				
Livingstone	34	9	11	23	33	6																																				
Madison	36	11	16	30	44	16																																				
Madison	380	80	183	21	44	157		23	2																																	
Montgomery	45	27	28	59	62	1																																				
Montgomery	83	19	27	24	33	17																																				
Nassau	3005	757	1297	28	43	827		8	31	24	140	3	2	1	5	2	1	24	4	1	20	1	2	3	3	3	1	118	1	1	3	4	1	3	2	37	1					
Nassau	75	29	41	36	55	36																																				
Niagara	176	55	67	30	38	42		25																																		
Niagara	281	126	139	43	49	35																																				
Ontario	75	38	39	50	52	33		6																																		
Oranget	108	52	53	48	51	6																																				
Orleans	21	2	2	09	10	1																																				
Oswego	56	23	35	41	63	23																																				
Oswego	48	2	25	04	52	8																																				
Queens	205	45	66	26	32	48		2																																		
Queens	101	30	42	29	42	7																																				
Rensselaer	65	10	21	14	32	11		1																																		
Richmond	38	18	12	21	32	4																																				
Rockland	66	16	18	23	27	17																																				
St. Lawrence	48	25	25	48	52	4																																				
Saratoga	109	90	69	78	62	6																																				
Schenectady	19	3	7	14	37																																					
Schoharie	11	2	4	13	36	4																																				
Schoharie	26	2	4	06	15	4																																				
Seneca	72	26	36	39	54	31																																				
Seneca	106	18	09	17	15	1																																				
Suffolk	21	7	18	31	58	3																																				
Sullivan	23	6	11	33	48	10																																				
Sullivan	60	13	14	22	23	12																																				
Tioga	62	26	27	41	44	1																																				
Tompkins	31	28	26	80	84	4																																				
Tyler	41	20	16	50	39	1																																				
Warren	37	11	16	30	43	15																																				
Washington	300	58	86	19	29	55		2	1																																	
Wayne	33	4	4	11	12	2																																				
Westchester	19	12	13	60	68	12																																				
Westchester	987	2899	3878	31	40	2339		1	22	53	943	234	5	2	1	8	3	7	41	5	1	34	5	1	34	7	1	1	195	2	1	2	1	8	5	1	1	3	48	58	1	1
TOTALS	987	2899	3878	31	40	2339		1	22	53	943	234	5	2	1	8	3	7	41	5	1	34	5	1	34	7	1	1	195	2	1	2	1	8	5	1	1	3	48	58	1	1

TABLE "A."

TABLE OF RATES CHARGED FOR GROUP PLAN INSURANCE OF MEDICAL SOCIETY OF THE STATE OF NEW YORK WITH AETNA LIFE INSURANCE COMPANY

		COLUMNS A							
		BEING LIMITS OF LIABILITY FOR ANY ONE CLAIM							
		\$5,000	\$10,000	\$15,000	\$20,000	\$25,000	\$30,000	\$40,000	\$50,000
LINES B BEING LIMITS OF LIABILITY FOR ALL CLAIMS DURING ANY ONE POLICY YEAR	\$15,000	\$18.00	\$22.32	\$25.92					
	20,000	18.90	23.22	26.82	\$29.16				
	25,000	19.62	24.00	27.54	29.88	\$32.04			
	30,000	20.34	24.66	28.26	30.60	32.76	\$34.38		
	35,000	21.06	25.38	28.98	31.32	33.48	35.10		
	40,000	21.60	25.92	29.52	31.86	34.02	35.64	\$37.62	
	45,000	22.14	26.46	30.06	32.40	34.56	36.18	38.16	
	50,000	22.50	26.82	30.42	32.76	34.92	36.54	38.52	\$39.06
	60,000	23.22	27.54	31.14	33.48	35.64	37.26	39.24	39.78
	70,000	23.94	28.26	31.86	34.20	36.36	37.98	39.96	40.50
	80,000	24.48	28.80	32.40	34.74	36.90	38.52	40.50	41.04
	90,000	25.02	29.34	32.94	35.28	37.44	39.06	41.04	41.58
	100,000	25.56	29.88	33.48	35.82	37.98	39.60	41.58	42.12

TABLE C

ANALYSIS OF MALPRACTICE CASES FOR PERIOD MARCH 15, 1922, TO APRIL 1, 1923.

Nature of Case	Pending March 15, 1922		Instituted Since March 15, 1922		Disposed of Since March 15, 1922	
	Number of Cases	Percentage of Total	Number of Cases	Percentage of Total	Number of Cases	Percentage of Total
Fractures—Arms, legs, hands.....	12	16 2/3	5	13 3/19	3	12 1/2
Obstetrics and Gynecology	8	11 1/9	3	7 17/19	4	16 2/3
Amputations—Toe, ear	2	2 7/9	..	.....	..	.....
Burns—X-ray, galvanic, lysol	6	8 1/3	2	5 5/19	1	4 1/6
Operations—Abdominal, tonsil, ear, eye	9	12 1/2	7	18 8/19	1	4 1/6
Needles, breaking, injection, punctures	5	6 17/18	2	5 5/19	2	8 1/3
Infections—Scalp, finger, hand, leg	6	8 1/3	4	10 10/19	2	8 1/3
Infection—Eye .....	..	.....	1	2 12/19	..	.....
Wrong diagnosis	3	4 1/6	..	.....	..	.....
Lunacy Commitments	6	8 1/3	1	2 12/19	..	.....
Loss of services of wife or child	7	9 13/18	7	18 8/19	4	16 2/3
Death by anæsthetic, morphine, diphtheria, etc.	8	11 1/9	..	.....	3	12 1/2
Unclassified .....	..	.....	6	15 15/19	4	16 2/3
Instituted by administrators.....	8	11 1/9	2	5 5/19	4	16 2/3
Instituted by men	27	37 1/2	18	47 7/19	11	45 5/6
Instituted by women	25	34 31/36	15	39 9/19	8	33 1/3
Instituted on behalf of children	12	16 1/2	3	7 17/19	1	4 1/6
Against specialists	26	34 4/19	12	31 11/19	7	29 1/6
Against general practitioners	50	65 15/19	26	68 8/19	17	70 5/6
Against physicians insured under State Society's Group Plan	23	.....	83	.....	16	.....

HOW DISPOSED OF

Settled .....	..	.....	..	.....	1	4 1/6
Dismissed or discontinued or tried (Verdict for defendant) ..	..	.....	..	.....	17	70 5/6
Affirmed on appeal for plaintiff .....	..	.....	..	.....	1	4 1/6
Judgment for plaintiff .....	..	.....	..	.....	1	4 1/6
Pending on appeal .....	..	.....	..	.....	2	8 1/3
Jury disagreed .....	..	.....	..	.....	1	4 1/6
Verdict for defendant reversed on appeal, new trial ordered .....	..	.....	..	.....	1	4 1/6
Total	95	.....	121	.....	40	.....
Pending on April 1, 1923	169	.....	..	.....	..	.....

the organs and growths which he previously claimed were necessary to be removed, and that by reason of his negligence, the plaintiff has suffered great bodily injury and pain and mental anguish, and that the disease with which the plaintiff was afflicted grew much worse and may cause her death.

(3) In this action the plaintiff called at defendant's office for examination. The defendant examined her and found that she was pregnant about a month. The defendant did not see her again for five months, but during the interim received reports from her about once a month. About eight months after her first visit she went to the hospital where defendant examined her. Her uterine contractions were not strong, and her progress was slow, and she was very tired. The defendant gave her a hypodermic injection, and on the following day, finding the plaintiff had not rested well, he repeated the same treatment. In the afternoon of that day he made a vaginal examination, finding the cervix a little more than half dilated. During this examination the membranes ruptured. On consultation with another physician the plaintiff was given chloroform and the cervix dilated to some extent, the consultant expressing the opinion that forceps would eventually become necessary. However, the uterine contractions became stronger. The position of the child early in the labor was right occiput posterior, but the head rotated to the anterior position. The plaintiff was delivered of the child with no complications. The general condition of both the plaintiff and child was very good, and they both left the hospital within sixteen days after delivery. The plaintiff now claims damages for defendant's negligence and incompetence while treating her as a physician.

INFECTIONS

(4) In this action, the plaintiff, a woman, had lacerated her finger with an oyster shell. She asked the defendant to treat her. Examination revealed periostitis of several days' duration. He sterilized the probe in boiling water, to which he added some lysol. He inserted a probe to open up the small opening that was present from the laceration so that he could drain the finger and see if there was any pus beneath the periostitis. He discovered nothing, and left the drain in for a few days. He saw the plaintiff daily for a few days thereafter and examined and dressed the finger and removed the old drain and put in a new drain, and subsequently the finger seemed healed. About a month later defendant was engaged to confine the plaintiff. She subsequently was delivered of a normal child and made no complaint during this period of the condition of her finger. Subsequently and about a year later plaintiff was operated on by another physician for the removal of the finger. The plaintiff now claims that the defendant failed to take proper antiseptic precautions in the treatment of her finger, and that by reason thereof necrosis developed, and the plaintiff was obliged to have her finger amputated. The plaintiff also alleges that by reason of defendant's negligence her body became saturated with poisonous pus emanating from the site of the operation, due to the improper method of operation by the defendant.

(5) In this case the defendant was called in to see the plaintiff who stated that she had fallen a day before and sprained an ankle joint. Upon examination the defendant found no fracture. He strapped the ankle with adhesive plaster transversely, and to reinforce it ran one or two straps horizontally, and instructed the plaintiff to remain in bed a few days and then to come and see him in his office. She did not come until ten days thereafter, when she told the defendant she had been to work for a few days, but found it very painful to walk. The defendant asked her why she had not come to see him sooner, and she stated that she thought it was not necessary. Upon examination, the defendant

found an open wound at a point in back of the ankle over the heel full of pus, which showed a very definite infection. The defendant drained the pus, gave the plaintiff some chlorazene tablets and instructed her to use one tablet to a half a glass of water and to moisten the application every hour. The defendant visited the plaintiff the next day and did not find any improvement. He repeated the prior treatment on this visit and told the plaintiff to remain in bed and not to go to work. The plaintiff, however, disobeyed his instructions and went to work every day even during the treatment. The plaintiff now sues alleging that the defendant negligently and unskillfully treated her foot so that it became infected and poisoned and caused her to become ill and suffer great pain and anguish for a long time, and that by reason of the defendant's negligence she has been obliged to engage and hire other physicians and expend sums of money in an endeavor to cure herself of the illness brought on by the carelessness and negligence of the defendant.

DEATH CASES.

(6) The plaintiff's intestate, a girl about 19 years of age, came to the defendant and complained of headaches and chronic nasal discharge. The defendant made a tentative diagnosis of chronic sinus trouble, and upon his recommendation she was admitted to an eye and ear hospital as a ward patient. X-ray pictures were then made of the nasal sinus, which showed that plaintiff's intestate was suffering from chronic ethmoiditis of the right side, and the defendant's further diagnosis from the X-ray plates showed that the nasal septum of the right side was deflected. A submucous resection of the nasal septum was performed, defendant removing the crooked bone, the operation being accompanied by extirpation of the right ethmoid. There was no excess bleeding and no packings were used after the operation. The patient was returned to her bed in good condition. When the defendant called on the second day, he found a note on the chart showing that the plaintiff's intestate had had a hemorrhage and that the house surgeon of the hospital had been called in to pack the nasal sinus. It also appeared upon the chart that the packings had been removed. The defendant examined the plaintiff's nose and did not see anything there except blood clots, which were not removed because he was afraid that a hemorrhage would start. The plaintiff's intestate was very irritable and very difficult to handle and would not let the defendant treat her. The defendant saw the plaintiff's intestate every other day until her discharge from the hospital about a week after the operation. After the patient was discharged she became an ambulatory patient at the hospital clinic, coming about once or twice a week. The defendant irrigated the patient's nose with a solution of argyrol and water. This treatment continued for about four or five weeks. Plaintiff's intestate complained, however, that the operation did not help her and she still had headaches and discharge. Upon examination of her nose upon one occasion, the defendant found a piece of gauze about four inches long, which he removed and washed the nose with a saline solution and instructed the plaintiff's intestate to return in about two or three days for further treatment; the plaintiff's intestate complained of pains and intense headaches after the gauze was removed. Upon further examination, her condition indicated that she might have an intracranial abscess, and the defendant advised the patient's parents that he thought the girl had a brain abscess and recommended that she go back to the hospital at the earliest possible moment. She was taken to the hospital and X-ray pictures were taken. The plates showed frontals small and moderately severe involvement; ethmoids, moderately severe involvement; both antra showed moderate involvement. The defendant then called in consultation several nose and throat specialists and they decided to explore the

patient's brain. The girl's parents were notified of this consultation and decision. An operation was performed by the defendant, assisted by several nose and throat specialists. A few days thereafter a second exploratory operation was performed. Part of the right frontal bone was removed and the frontal sinus was thoroughly examined and no pus found. The posterior wall of the frontal sinus was removed and the right frontal lobe carefully examined. The usual dressings were then applied and the patient was returned to the ward. The defendant saw the patient every other day after the operation and changed the dressings himself. During this period the patient became very violent and would not permit the defendant to touch her, and would tear the dressings, stick her fingers into the wound and scratch the defendant and the nurse. Because her condition was dangerous to herself and others, the superintendent of the hospital notified the girl's parents that she could no longer be kept there, and she was thereafter removed to the psychopathic ward of another hospital. Defendant did not see the girl thereafter. The girl subsequently died and her administratrix brings this action, claiming that the defendant so negligently and unskillfully conducted himself in the care, treatment and operation of the plaintiff's intestate that the bones and tissue of decedent's skull became diseased and infected and suppuration and decay thereof were occasioned, and that decedent came to her death by reason of the aforesaid acts on the part of the defendant.

FRACTURES.

(7) In this case, the plaintiff, a woman, had been committed as an insane person. In addition to her mental disorders her left arm and leg were paralyzed. She was a difficult patient to handle being noisy, irritable and given to obscene speech. In the afternoon some six months after her commitment, while standing in her room she had a dizzy spell or lost her balance and fell fracturing the left femur in the upper third. She was given immediate treatment which was rendered under great difficulty as the plaintiff was very restless and it was only with the greatest care that her leg was kept in proper position. The treatment resulted in a firm fibrous union of the fractured femur; her mental condition improved so much that her relatives demanded to take her home. She subsequently sued the sanitarium and the physician in charge, alleging that a nurse in the employ of the defendants shouted in a loud voice causing her to fall and fracture her left thigh and that defendants failed and neglected to give her proper treatment and that by reason thereof, her left leg became shortened several inches and she suffered other injuries to various parts of her body.

(8) The plaintiff, an iron worker and a stranger to the defendant, called at defendant's office for examination and defendant found him to be suffering from a Colles fracture of the right wrist. Defendant reduced the fracture and applied a wooden splint extending from the elbow to the palm of the hand which was strapped with adhesive plaster between the thumb and fingers. The bottom of the splint was padded with cotton and another pad was placed at the end of the radius and ulna above the fracture. The hand was left in this condition for three weeks and twice a week a new dressing was put on. The defendant reduced the fracture by hyperextension of the wrist, traction, flexion and also manipulation of wrist to keep the bones in line. The plaintiff was warned not to do any heavy work but to bend his wrist back and forth and to use it for eating purposes only. Plaintiff now claims defendant carelessly and negligently reset his wrist in such a manner that the bones were not set in a proper position with the result that plaintiff's forearm has become useless.

(9) The plaintiff in this case was thrown down cellar stairs into the basement of a building, a barrel falling on top of him and fracturing the upper third of the right femur causing a compound comminuted fracture. He was taken to the hospital and defendant reduced the fracture as soon as possible and subsequently performed two additional operations. Two weeks later he went home. His leg was in a cast. He was told to return to the hospital to have the cast removed. This he did not do, and either removed it himself or it was removed by some one not a physician. He now sues, alleging that defendant negligently and carelessly treated and set his leg so that it became imperfectly united and that by reason thereof, he has been permanently crippled and has lost the use of his leg.

(10) In this case the defendant was called in by another physician to examine the plaintiff, a child. The defendant diagnosed his condition as a probable fracture or dislocation of the elbow. The left arm was helpless and the elbow was swollen and extremely tender. It was impossible to determine exactly the nature of the injury, but the presumption was that it was a fracture. The child's mother was told that an X-ray should be taken immediately and the mother stated that she would have an X-ray taken by a friend of hers. The defendant put the child's arm in a temporary fixation bandage to permit the child being transported. The X-ray pictures were taken by one chosen by the plaintiff's mother. They showed a fracture of the clavicle in the middle third, also a comminuted fracture of the humerus, extending into the elbow joint with forward displacements of the condyles; the lower end of the humerus was fractured. A day after the X-ray pictures were taken, the child was given an anæsthetic and the elbow and collarbone set. The mother was advised that fractures of the elbow in children are very troublesome and it is a long time before function is restored and the elbow is back to normal. During the operation the elbow was manipulated and placed in a position of hyperflexion. The elbow and arm were fixed against the chest wall so as to immobilize the fractured collarbone. At that time a starch bandage was used, thus making practically a cast but not as heavy. The defendant saw the child the second or third day and told the mother that in about ten days he would cut the bandage and would begin movement of the elbow. On the ninth day the cast was slit down and passive motion and massage of the elbow begun. The cast was split down on the opposite side of the chest and after treatment of passive motion and massage, the cast was reapplied and brought together and held in place with adhesive plaster. Two days later the same thing was done and thereafter at the end of about two and a half or three weeks the cast was off altogether and passive motion was continued and the extension greatly increased until the child had about 135° extension, but the defendant could not get any extension beyond 135°. At about the end of the fifth week, on the defendant's advice, the mother took the child to a specialist, who recommended diathermia treatment for restoration of the function of the elbow. The mother became dissatisfied with this specialist and the defendant took the plaintiff to another specialist where he was treated for some time. After the child had been placed in the hands of the second specialist, the defendant did no further work on the case. The plaintiff now sues, alleging malpractice in the treatment and operation of the left arm of the child.

X-RAY.

(11) In this case the plaintiff, a woman, claims she called at defendant's office for the purpose of having an X-ray photograph taken of her head, and defendant proceeded to take said X-ray photographs in such a negligent and careless manner that a portion of the X-ray apparatus came in violent contact with her head,

causing her to sustain severe and painful injuries for which she demands damages.

BURNS.

(12) Defendant received an emergency call to treat plaintiff, a boy two years of age, who was badly burned while playing around a bon-fire. Defendant dressed the burns and treated them with carron oil and ordered the plaintiff to bed and told the parents to remove him to a hospital as conditions were such as made proper treatment impossible. The defendant treated the boy for a month and a half, during which time the parents frequently disobeyed his instructions and refused to send the child to a hospital as the defendant advised. The child, suing by his guardian ad litem, now contends that defendant negligently and unskillfully treated him so that his right leg was shortened and he became permanently disabled.

OPERATIONS.

APPENDIX, TONSILLAR, ABDOMINAL.

(13) The plaintiff, a girl 15 years of age, had been suffering from a periodical pain in the right side. She consulted the defendant, who, upon examination, found her to be suffering from chronic appendicitis. An operation was thereafter performed. The appendix was removed with a carbolized knife. The stump of the appendix was inverted into the wall of the caecum by means of a purse-string suture, which suture was made along the base of the mesentery in an overlapping suture. A second operation was thereafter performed in which the scar tissue was removed from the old wound. Interrupted sutures of silk-worm gut were introduced through the skin, through the fascia and through the muscle and tied, and the inter spaces between the sutures were sealed with Michelin clips. The plaintiff now claims that the defendant did not use due or reasonable skill in performing said operations and that the defendant improperly performed the said operations and failed and neglected to drain the wound of its pus and that the defendant discharged the plaintiff from his private hospital when she was in no condition to leave the hospital, thereby placing her life in jeopardy; that the said acts of the defendant caused the plaintiff great pain and suffering and rendered her unable to attend to her business occupation.

(14) In this case the plaintiff, a man of a very nervous type, called at the office of the defendant for examination. The defendant found that the plaintiff's tonsils were diseased and subsequently operated to remove them. The tonsils were removed by the snare method. After the operation, the plaintiff appeared to be very weak and he was sent to a hospital. That night the defendant called the hospital and was advised that the plaintiff was doing well. The defendant visited the plaintiff the next day, and except for a slight soreness in the throat, he said he was feeling very comfortable. The defendant told the plaintiff that as soon as he had been discharged from the hospital, to report at his office which the plaintiff did and found, except for the natural amount of reaction and tenderness from the operation, that the plaintiff had entirely recovered. The plaintiff now claims that the defendant advised an operation for the removal of his tonsils and that the said operation was performed in such a careless, negligent and unskillful manner, that the plaintiff became sick and disabled and suffered great pain and his entire system became greatly weakened and that by reason thereof, he became unable to attend his usual occupation for a long period of time.

(15) The plaintiff in this case, a woman, called at the office of one of the defendants complaining of pain in her right arm and right side. An examination showed that she had an enlarged gland and abscess under the right arm. The same was opened by the de-

fendant, thoroughly cleansed and dressed. About ten days thereafter she again called at the defendant's office and complained of pain in her right side and a feeling of nausea for which she was given treatment. A subsequent examination by the defendant revealed that a condition existed which could be cured only by operation, and this the defendant advised. Plaintiff went to a hospital and was operated upon by the co-defendant, assisted by the defendant. The operation was made upon the gall bladder. After leaving the hospital she was treated on and off for about three months by the defendant. The plaintiff now sues both the physician who treated her and the operating physician, alleging that one of the defendants diagnosed her malady as gall stones and advised an operation and recommended the other physician as a skillful physician and surgeon for such operation, but that the operation was performed in such a negligent manner that the plaintiff was not cured of her malady and became worse and suffered great pain and was damaged rather than improved by such treatment and operation, and that by reason thereof the plaintiff was greatly injured in her health and constitution, and was incapacitated from performing her usual labor for a long period of time, and her health was permanently impaired by reason of the said improper and negligent treatment.

(16) The plaintiff, a man 40 years of age, had complained for five or six months of pains across his abdomen. Two weeks prior to being operated on by the defendant he had such a severe attack that he was taken to the hospital where he stayed for about ten days. The defendant examined the plaintiff and performed an operation upon the gall bladder. The plaintiff left the operating table in fair condition and continued to improve and left the hospital with the understanding that he would return at some later time for the closure of the fistulous opening into the colon if it did not close spontaneously. Subsequently the defendant performed a second operation on the plaintiff. The plaintiff now claims that the defendant advised him that it was necessary to perform an operation for gall stones and bladder trouble, and that such operation was performed in such a careless, negligent and unskillful manner that the plaintiff was permanently disabled and made sick, and kept from attending to his business for two months, and that during the period of time that the plaintiff was confined to the hospital as a result of said operation the defendant failed and neglected to give the plaintiff proper and necessary treatment and attention.

WRONG DIAGNOSIS

(17) In this case, the plaintiff, a young man, 17 years of age, was examined by the defendant and found to be suffering from cellulitis of the right limb, reaching from the toes to a point above the knee. He had a high temperature, and there were present all symptoms of infection. The defendant instructed that ice packs be applied to the leg and also prescribed an antiseptic solution for bathing the leg. The defendant examined the plaintiff twenty-four hours later and found that the temperature had dropped considerably. The defendant also learned at that time that a week prior to his being called in the plaintiff had scratched his leg and had been treated by another physician who had prescribed various salves, one of which was unguentine. Upon the defendant's next visit, which was forty-eight hours after his first, he found the temperature had risen and that the cellulitis had spread and the plaintiff was then ordered to the hospital. Defendant did not see or treat him again. The plaintiff now sues alleging that he had a swelling of the anterior surface of the left leg, and the defendant failed to make a proper diagnosis of the said swelling and to advise proper treatment thereof, and so negligently and unskillfully treated and diagnosed the same that the plaintiff suffered from a thrombosis, as a consequence of which gangrene set in, necessitating

his removal to a hospital where his left leg up to and including the lower half of the thigh was amputated, and that by reason of the defendant's negligence, the plaintiff was made sick, sore and permanently disabled and crippled and will be permanently prevented from attending to his business and earning a livelihood.

UNCLASSIFIED.

(18) The defendant in this case was called in to treat the plaintiff who was in bed suffering from bronchitis. The defendant examined the plaintiff's lungs and prescribed an expectorant. He called in the following day and found the plaintiff in good condition and with no temperature, and told him that he might get up and go out. Five days later plaintiff called to see the defendant. His face had a rash on it and was swollen and reddish. He asked the defendant if he thought it was erysipelas and the defendant told him that it was not. Upon inquiry he learned that the man had a chancre in early life and he told the defendant that he believed he had some syphilis still in his system. The plaintiff persisted in his belief that he was suffering from erysipelas, and the defendant told him to go to a skin and cancer hospital in order that the defendant's diagnosis might be confirmed. This the plaintiff did, and returned to the defendant saying that the physicians at the hospital told him that he was not suffering from erysipelas. The defendant prescribed medicine to clear up the rash on plaintiff's face. A few days later the plaintiff returned, the rash had disappeared, and his face was cleared up, and he told the defendant he was feeling well. The defendant heard nothing further from the plaintiff until this action was brought. The plaintiff now sues to recover damages for personal injuries resulting from the negligent treatment by the defendant.

(19) In this case the plaintiff came to the defendant's office stating that he had a foreign body in his eye. The defendant holocainized the eyeball and used a small eye scapel to remove the foreign body which was a small piece of what he thought was dirt. After removing the dirt he applied a boric acid solution to the eyeball and gave the plaintiff a prescription for a boric acid solution containing some camphor and distilled water in equal parts and another prescription containing 10 per cent argyrol, with instructions to put ten drops of the first prescription into the eye every hour and the argyrol twice a day, morning and night. There was a slight ophthalmitis due to the irritation of the foreign body. Two days later the plaintiff called again and the defendant told him to continue the same treatment. At this time the conjunctiva did not seem to clear up. Some five days later the plaintiff called again. His eye was considerably inflamed, but there was inflammation of the deeper structures. Because of the conjunctiva condition defendant prescribed one per cent atropine, and instructed the plaintiff to put a couple of drops in his eye every four hours. The plaintiff complained of great pain, and the defendant gave him a solution of one per cent dionin to relieve the pain. Upon the next visit, two or three days later, the defendant found the inflammation had not advanced and told the plaintiff to come back in a few days. Plaintiff did so and upon examination the defendant found that the deeper structures of the eye were becoming involved, that the conjunctivitis was still present and had not cleared up, that the iris had lost its brightness and was becoming lustreless. The defendant determined that it was a case for an eye specialist and advised the plaintiff to go and see an eye specialist. Plaintiff now sues, claiming that the defendant negligently and carelessly failed to give the plaintiff proper treatment, necessitating the removal of his eye, and that by reason thereof the plaintiff has been made sick, sore, and was confined to his bed suffering intense pains and agony, and was unable to attend and transact his business.

LOSS OF SERVICES.

(20) There are seven actions pending on behalf of husbands or fathers of infant children to recover for the loss of services of their wives or children alleged to have been caused by the negligence of the defendants in the care and treatment of such patients. In practically all of the actions brought by married women such actions are accompanied with an action by the husband to recover for the wife's loss of services. Likewise, in actions in behalf of minor children the same is generally accompanied by an action by the father, or if he be dead, the mother of such child, to recover for the loss of services.

Much of the most valuable work done by a physician for his patient is in study and preparation of the case in his office, the work, time and labor concerning which are never known and oftentimes little appreciated by the patient. So in the handling of a malpractice case for a doctor, perhaps the greater part of the burden of the case arises in connection with the thorough preparation for the trial. This means a most complete examination and analysis of everything which the doctor has done in the case, an examination of the medical authorities, a detailed and minute examination of all the witnesses who have any knowledge of the facts, including a most thorough examination of the doctor himself. In addition to this, it is often necessary to make motions in court for bills of particulars in order to amplify the complaints and to ascertain in detail the full nature and character of the basis of the claim; also it is frequently desirable or necessary to make motions for and to obtain orders requiring the physical examination of the plaintiff in order that we may be apprised of the full nature and character of the actual injury, if any.

It is a well known rule applicable to the medical profession, that the doctor must keep abreast of the times and must be apprised of all of the advances made in the healing art. A similar rule requires on the part of counsel a constant examination of the changing rules of law in the jurisdiction not only of this state, but of all the states in the union in order that he may constantly be equipped with the latest rules and decisions of the courts governing a doctor's duties and liabilities.

An exhaustive, thorough and painstaking preparation of the defense many times results either in preventing the actual bringing of a contemplated action or in the discontinuance of an action which has already been brought. During the past year numerous cases against doctors were satisfactorily disposed of and discontinued or dismissed without the necessity of the doctor's attendance at court. This was done by motions for judgments on the pleadings, motions to dis-

miss the complaints, etc., upon the grounds among others, that the action was barred by the Statute of Limitations. This course terminates the case to the entire credit of the doctor and obviates the necessity of being called away from his practice to attend personally in court. A careful analysis of the plaintiff's complaint often presents the opportunity of the making of various motions resulting in a benefit to the doctor who has been sued. For instance, in some cases it has been found that an action has been brought (perhaps for the very purpose of causing him the maximum of inconvenience) in a county which is a great distance from that in which the doctor resides and in which the nurses and other material witnesses may be found. Where motions for a change of the place of trial are granted, the doctor and his witnesses are saved much time and inconvenience. Close analysis of a complaint sometimes reveals allegations of an immaterial or prejudicial character. Upon motion the court will usually eliminate these. The issue is thus limited and a smaller burden in the defense and trial of the action is placed upon the doctor. These provisional or intermediate remedies are obtained without subjecting the physician to attendance in court and the loss of his valuable time.

Counsel again desires to express his grateful and sincere appreciation of the generous assistance that has been rendered him during the past year by many members of the Society who have unselfishly and unstintingly given their time, advice and co-operation in the preparation of the cases and as expert witnesses.

Counsel also desires again to thank the various officers and committees of the Society for their splendid support and co-operation which at all times they have shown.

From time to time during the past year your counsel has given to the profession the results of this experience and knowledge acquired in the practice of this specialty and has embodied these results in various editorials and papers which have appeared in the Society's journal.

There has been prepared by your counsel a statement of various principles of law applicable to physicians in the practice of their profession for the purpose of apprising them of the possible liabilities, which statement will be attached to the proposed revised principles of professional conduct as an appendix to the same.

All of which is respectfully submitted.

GEORGE W. WHITESIDE,
Counsel.

Dated, April 15, 1923.

REPORT OF THE COUNCILOR OF THE FIRST DISTRICT BRANCH

To the House of Delegates:

The First District Branch of the State Medical Society was held in the auditorium of the Elks' Club at Yonkers, N. Y. A large and enthusiastic number attended the excellent scientific papers and at this meeting, the new officers for the following year were elected:

President, E. C. Rushmore, M.D., Tuxedo Park; First Vice-President, J. A. Card, M.D., Poughkeepsie; Second Vice-President, E. R. Cunniffe, Bronx; Secretary, C. I. Redfield, M.D., Middletown; Treasurer, J. T. Howell, Jr., M.D., Newburgh.

Respectfully submitted,

GEORGE A. LEITNER,
President.

April 15, 1923.

REPORT OF THE COUNCILOR OF THE SECOND DISTRICT BRANCH.

To the House of Delegates:

The activities of the County Societies in the Second District Branch have been as follows:

Suffolk County has begun a News Letter, published monthly under the editorship of Dr. Frank Overton. This News Letter concerns itself with the activities of the membership of the County Society as well as the doctors of the county. It is a live up-to-date publication and would bear copying by other societies.

Clinics have been held at a number of places in the county.

The legislative chairman, Dr. W. H. Ross, has been active in responding to requests of the State Legislative Chairman.

Meetings have been held regularly.

Nassau County: Meetings of the County Society have been increased from three a year to monthly except during June, July and August; there has been noted an increase in attendance and interest since the inauguration of the monthly meetings.

The legislative chairman, Dr. G. S. Newton, has attended hearings in Albany, and has also been active in keeping the men informed as to the legislative program of the State Society.

Queens County: Since the separation of the Queens-Nassau into two separate societies there has been a material growth of the Queens County Society. Meetings are held monthly, with a collation after each meeting. This latter feature seems to have been an item in attracting a larger attendance.

A notable event was the first annual dinner of the society at the Forest Hills Inn. This was attended by the officers of the State Society and by Senator Copeland.

Kings County: Meetings have been held

regularly in the society building on Bedford Avenue.

At large:

There are a number of local societies in each of the four counties, and one, the Associated Physicians of Long Island, which embraces all four.

These small groups hold meetings regularly and provide a certain amount of social intercourse which is not usually found in the County Society.

The Associated Physicians of Long Island meet three times yearly. The meetings are partly scientific and partly social.

The annual meeting of the Second District Branch was held in December in the rooms of the Kings County Medical Society. At this meeting the election of officers took place. Dr. Frank H. Lasher of Brooklyn was elected President for the next two years.

Respectfully submitted,

A. D. JAQUES,
President.

April 15, 1923.

REPORT OF THE COUNCILOR OF THE THIRD DISTRICT BRANCH.

To the House of Delegates:

The Third District Branch has been very active during the past year.

The Annual Meeting was held at Kingston, N. Y., September 28th, 1922. The meeting was called to order at ten o'clock, with the presentation of unusual cases by members of the Society. The cases were assigned to special groups where the methods of examination were observed and the deductions considered.

At twelve o'clock there was an inspection of the Benedictine and Kingston City Hospitals, where many interesting patients were shown.

Dinner was served by the Ulster County Medical Society at the Y. M. C. A.

In the afternoon the Scientific Session was opened with an address by the President on "Our Obligations to Patients."

Some of the cases presented in the morning were discussed in more detail before the entire membership, especially one of chronic tuberculosis, another of repair of urethra by implantation of a dog's aorta, which operation had been done by Dr. James N. Vander Veer and Dr. John E. Heslin.

Dr. William J. Cranston also spoke about mastoid operations. This discussion was followed by an address by Dr. James F. Rooney, of Al-

bany, N. Y., on "Aplastic Anemia"; an address by Dr. John M. Swan, of Rochester, N. Y., on "Control of Cancer"; and an address by Dr. Edward Livingston Hunt, of New York City, Secretary of the Medical Society of the State of New York, on "Discussion of the Common Forms of Nervous Disease," illustrated by moving pictures.

All members were enthusiastic regarding this first clinic so conducted by the profession for the consideration of cases, and agreed that next year the clinic will be larger, and the benefit to patient and doctor much greater.

Dr. Herbert L. Odell, on behalf of the physicians and citizens of Sharon Springs, invited the Society to meet there next year.

A vote of thanks was unanimously extended to the Ulster Medical Society for their excellent entertainment.

The following officers were elected for the ensuing two years:

President—Arthur J. Bedell, M.D., Albany, N. Y., re-elected.

Vice-President—Charles P. McCabe, M.D., Greenville, N. Y.

Second Vice-President—Frank L. Eastman, M.D., Kingston, N. Y.

Secretary—Clark G. Rossman, M.D., Hudson, N. Y.

Treasurer—Frank M. Sulzman, M.D., Troy, N. Y.

The Third District Branch remains opposed to State Medicine in any form.

Respectfully submitted,

ARTHUR J. BEDELL,
President.

April 15, 1923.

REPORT OF THE COUNCILOR OF THE FOURTH DISTRICT BRANCH.

To the House of Delegates:

The Fourth District Branch of the Medical Society of the State of New York held its annual meeting in Schenectady on September 26, 1922.

The following officers were elected for the ensuing year:

Dr. Charles C. Trembley, of Saranac Lake, President.

Dr. H. M. Hicks, of Amsterdam, First Vice-President.

Dr. L. G. Barton, of Plattsburg, Second Vice-President.

Dr. J. E. Free, of Ogdensburg, Secretary.

Dr. F. J. Sherman, of Ballston Spa, Treasurer.

On motion made by Dr. Leo Schiff of Plattsburgh, the President was directed to appoint a committee on Nursing Education, to study, from the viewpoint of the medical profession, the Nursing situation in the region covered by the Fourth District Branch, this committee to report at the next meeting. The following were appointed on this committee:

Dr. Leo F. Schiff, of Plattsburgh, chairman; Dr. Roy C. Keigher, of Schenectady; Dr. Richard R. Canina, of Amsterdam; Dr. E. MacD. Stanton, of Schenectady.

I know of no special problems pertaining to the work of the Fourth District or its component societies which relate to the work of the State Society.

Respectfully submitted,

E. MACD. STANTON,
President.

April 15, 1923.

REPORT OF THE COUNCILOR OF THE EIGHTH DISTRICT BRANCH.

To the House of Delegates:

The Annual Meeting of the Eighth District Branch was held at Niagara Falls, N. Y., Thursday, October 5th 1922; two hundred and fifty persons being in attendance.

The affairs of the various counties are in excellent condition, and there is a general feeling of satisfaction with the manner in which the State Society is looking after legislation at Albany.

The members of the rural counties feel that the problem of the scarcity of physicians in those counties will not be solved until some way is found to get the young physician to go to the home of the patient.

They feel that he would gladly do this if he were trained to make bedside diagnoses.

This implies a fundamental fault in the present method of teaching medicine, which was referred to in a previous report from this district.

Respectfully submitted,

HARRY R. TRICK,
President.

April 15, 1923.

House of Delegates

The regular meeting of the House of Delegates of the Medical Society of the State of New York was held at the Academy of Medicine, 17 West Forty-third Street, New York City, N. Y., Monday May 21, 1923, at 3 P. M., Dr. E. Eliot Harris, Speaker, presiding, Dr. Edward Livingston Hunt, Secretary.

The Speaker called the meeting to order and a quorum being present, announced that the first order of business was the reading of the minutes of previous meeting. The minutes having been printed, and no corrections having been proposed, the minutes were approved as printed.

The Speaker appointed the following reference committees:

Reference Committee on Credentials—E. Warren Presley, Richmond, Chairman; Walter A. Leonard, Washington; J. Milton Mabbott, New York; Luther C. Payne, Sullivan; Charles B. Story, Queens.

Reference Committee on President's Address—William F. Campbell, Kings, Chairman; John C. Fisher, Chemung; Clarence E. Mullens, Albany; James E. Sadlier, Dutchess-Putnam; Grover W. Wende, Erie.

Reference Committee on Speaker's Address—Thomas C. Chalmers, Queens, Chairman; Nelson O. Brooks, Madison; Carl R. Comstock, Saratoga; Howard Fox, New York; Josiah W. Morris, Chautauqua.

Reference Committee on Reports of Secretary, Treasurer, Council and Councilors—Ralph E. Brodie, Orleans, Chairman; F. M. Miller, Oneida; Homer J. Knickerbocker, Ontario; Lyman Driesbach, Schoharie; Herbert B. Smith, Steuben.

Reference Committee on Reports of Committee on Public Health and Medical Economics—Arthur G. Bennett, Erie, Chairman; Frederick C. Reed, Schenectady; Harry S. Bull, Cayuga; Luzerne Coville, Tompkins; James B. Conant, Montgomery.

Reference Committee on Legislation—John W. LeSeur, Genesee, Chairman; Milton A. McQuade, Orange; C. B. Story, Queens; D. P. Mathewson, Steuben.

Reference Committee on Constitution and By-Laws—Daniel S. Dougherty, New York, Chairman; Grant C. Madill, St. Lawrence; Edward W. Weber, Westchester; J. Richard Kevin, Kings; William H. Ross, Suffolk.

Reference Committee on Report of Legal Counsel—Edward R. Cunniffe, Bronx, Chairman; Frank D. Jennings, Kings; Charles C. Trembley, Franklin; William A. Wasson, Greene; U. Grant Williams, Herkimer.

Committee on New Business A, Owen E. Jones, Monroe; Chairman; G. M. Cady, Tioga; Andrew MacFarlane, Albany; Jacob E. K. Morris, Cattaraugus; Charles E. Scofield, Kings.

Committee on New Business B, Page E. Thornhill, Jefferson, Chairman; Russell S. Fowler, Kings; John C. S. Lappeus, Broome; Sherwood V. Whitbeck, Columbia; James P. Brady, Monroe.

Committee on New Business C, George W. Kosmak, New York, Chairman; H. Burton Doust, Onondaga; Albert Warren Ferris, Schuyler; De Witt H. Sherman, Erie; O. Paul Humpstone, Kings.

Dr. Booth, President, arose to a question of personal privilege. The Speaker after hearing the reason decided the question was in order. Dr. Booth then stated that certain publications be referred to a committee for consideration and report, with the view of having the committee and the House of Delegates determine whether the president and the members of the Governor's Medical Advisory Committee and other members of the society mentioned in these publications are still entitled to the confidence of the society.

The Speaker referred the matter to Reference Committee A, on new business.

THE SPEAKER: The next business on the program is the address of the President.

The President read his address which was referred to the Reference Committee.

THE SPEAKER: The next order of business is the address of the Speaker.

As the address has been printed and sent to every member of the House of Delegates the Speaker asks that it go to the Reference Committee without reading.

The address was referred to the Reference Committee.

THE SPEAKER: The next is the report of the secretary. Is there any motion in regard to any of these reports, or do you wish to hear them?

It was moved, seconded and carried that as the reports were printed, they take the usual course.

DR. VANDER VEER, presented the following supplementary report to the report of the Committee on Legislation. The report was adopted and made a part of the main report.

SUPPLEMENTARY REPORT.

May 9, 1923.

The Legislature adjourned on May 4th, and the following are the final decisions on bills, and the action which your Committee on Legislation has taken thereon:

Educational Department Medical Examination Bill. This bill passed both houses, and now lies before the Governor.

Your Committee on Legislation has asked the County Legislative Chairmen to write to the Governor urging that he approve this measure.

Laboratory Service for Local Medical Practitioners. Bill passed the last night of the session, and now lies before the Governor.

Medical Society Bill. Introduced by Mr. F. H. Lattin, amends section 215, Membership Corporation Law, relative to annual dues and assessments of medical societies, (Same as Senate Int. 1774. Senate bill passed by both houses and now lies before the Governor.

Your Committee on Legislation has asked the County Legislative Chairmen to write the Governor asking that he sign the bill.

Medical Society Bill. Introduced by F. H. Lattin, amends Chapter 213, Laws of 1909, relative to changing time and place of annual meeting of State Medical Society. (Same as Senate Int. 1773.) Senate bill passed by both houses and now lies before the Governor.

Your Committee on Legislation has asked the County Legislative Chairmen to write the Governor asking that he sign the bill.

Maternity and Infancy Welfare Bill. Bill passed during the last hours of the session. Now in the hands of the Governor.

Your Committee on Legislation has requested that the Governor grant us a hearing on this bill, that we may voice our objections to the measure, and we have asked the County Society Presidents and Legislative Chairmen to send their letters of disapproval to the Governor.

State Aid to Counties Engaged in Public Health Work. Bill passed during the last hours of the session, and now lies before the Governor.

Your Committee on Legislation has suggested that the County Legislative Chairmen protest to the Governor, and request his affixing his veto to this bill, and that they urge the boards of supervisors and medical men and laymen to voice their opposition or favor toward such a measure.

In its present form the members of the medical profession can do naught but object to such great departmental government.

JAMES N. VANDER VEER, *Chairman.*

DR. LE SEUR, Genesee: I offer the following resolution:

Resolved: That the House of Delegates representing the medical profession of the State of New York, gratefully recognize and heartily appreciate the action of Governor Alfred E. Smith in calling representatives of the

medical profession into conference upon questions of medical interest to the citizens of the State, and we pledge him our hearty co-operation in the effort to secure the best interests of the citizens of this state.

Seconded and referred to Reference Committee B, on new business.

DR. BOOTH: I move that a committee of reference be appointed to take up the matter of the situation in Delaware County, and report back to the House of Delegates with a view of reinstating all legally qualified practitioners of medicine in Delaware County as the Delaware County Medical Society.

Seconded and referred to Reference Committee C on new business.

The Secretary read the following report of the Committee on Prize Essays:

To the House of Delegates:

The Committee on Prize Essays takes pleasure in saying that only one essay has been received.

After careful consideration of this Essay, the Committee is unanimous in recommending that the Merritt H. Cash Prize be awarded to the Essay entitled "Leucocytosis of Internal Hemorrhage."

The Committee also recommends that the following resolutions be approved by the House of Delegates:

Whereas, At the Centennial meeting of our State Society in 1906, one of its members offered the sum of fifteen hundred dollars, the income to be given for the prize, either in money or in the form of a suitable medal for the best original contribution to our knowledge of some branch of surgery—preferably ophthalmology, and

Whereas, The present committee has learned that at least one to whom the prize has been already awarded in money, would prefer to exchange part or all of that, for a medal, therefore

Resolved, That this Society formally approves of the action of the Committee in making the award of this prize partly in the form of a suitable medal as indicated by the donor at a cost of \$50.00 and that an equal amount of the income be expended in printing and distributing reprints of the essay.

Resolved, That if the recipient of the prize in any former years prefers a medal, he can receive one from the Society through its committee by refunding its cost to the treasurer.

Resolved, That the prize for the present shall continue to be \$100.00, one-half for the cost and the other half for printing and distributing reprints of the essay. But if, in the future the income from this fund should be sufficient to warrant it, then another or even other such prizes may be awarded on the same or on a similar plan.

Respectfully submitted,

EDWARD D. FISHER, *Chairman.*

May 21, 1923.

Referred to the Committee on Constitution and By-Laws.

The Secretary read the following communication from the New York Committee of the American Society for the Control of Cancer:

"May 18, 1923.

"DEAR DR. HUNT:

"Since the House of Delegates of the Medical Society of the State of New York approved the work of the American Society for the Control of Cancer at its meeting in 1921, I feel that the House might be interested in hearing a short statement of the work of the society. I should like to make this statement on Tuesday morning if the House will have time to listen. If you want to send me a letter about it please address it to me at 370 Seventh Avenue, c/o American Society for the Control of Cancer.

"Yours truly,
"JOHN M. SWAN."

Referred to Reference Committee C on new business.

The Secretary read an application for retired membership in the Medical Society of the State of New York from Dr. Theodore C. Mills, Middletown.

Referred to Reference Committee C on new business.

The Secretary read the following:

"At the annual spring meeting of the Madison County Medical Society, held at Canastota, on May 1st, the following preamble and resolutions were offered and after lengthy discussion, were unanimously adopted.

Whereas, We the officers and members of the Madison County Medical Society, note with supreme regret the progressive depletion of the ranks of the medical practitioners of this and all other counties of our state, particularly in the rural districts, amounting to, in many village sections a loss of from 75 to 90 per cent of their former supply of resident physicians, and resulting in numerous instances in much unnecessary physical suffering and mortality which prompt medical service would have averted,

Whereas, We observe that the depletion of the rural medical population began with the change in the graduation requirements, which present day requirements have proven available only to the wealthier classes of students, and prohibitory to the more energetic, persevering self-made men of the poorer classes, whose limited means preclude the taking of the seven years expensive college courses now required by the medical laws,

Whereas, History has demonstrated, that a large percentage of the most successful physicians and surgeons and other professional and business men of America, arose from the ranks of the poorer working boys, whose circumstances forced to the highest degree the development of the spirit of perseverance and determination, thus qualifying in early life in the ways and means for surmounting difficulties, and achieving results under unpromising and discouraging conditions, qualities so essential to professional and business success, which qualities in many instances are not developed or possessed by the wealthy classes of medical students of the present day,

Whereas, We note that the Chiropractic ranks are being recruited to a great extent from ambitious and active young men who, though preferring membership of the regular medical profession, are, for financial reasons, unable to meet the expenses of the long preparatory courses required by prevailing regulations, and who, under the existing state laws, are able to acquire the title of Doctor with the full income of the regular, by the shorter, less expensive route of the Chiropractor,

Whereas, The usual city-bred medical graduates are inadapted to successfully practice in the rural districts, and such graduates are universally disinclined to locate and reside in county villages, and that experiment has repeatedly demonstrated that none but the country boy whose habits, characteristics and mentality are in common with his patrons, ever makes the successful and acceptable rural village doctor,

Resolved, That we instruct our representative at the approaching convention of the State Medical Society, Dr. N. O. Brooks, to present this memorandum to the State Society, with the appeal for such a modification of the present regulations governing graduation in the study of medicine and surgery, as will remedy beyond question the grave situation now confronting the large rural population of our state."

Referred to Reference Committee C on new business.

DR. O'REILLY, Kings: I move that the delegates from the New York State Medical Society to the American Medical Association at San Francisco, be instructed to work and vote in favor of the amendment to the constitution which will limit scientific section delegates to a voice without a vote, and the resolution which maintains a board of trustees of the American Medical Association at nine and reduces their term of office from

three years to two years; that they be instructed to vote against the amendment to the constitution which would shrink the board of trustees of the American Medical Association from nine members to seven, and expand their term of office from three years to seven years; the County Society having in mind that the board of trustees of the American Medical Association is not a board of trustees in the true sense. Motion seconded.

THE SPEAKER: Put that in writing and it will go before Reference Committee C on new business.

DR. DOUGHERTY: Chairman of the Committee on Constitution and By-Laws.

Your Committee begs to report as follows: The first amendment to be considered is an amendment to the by-laws, Chapter XI, Section 5, to insert the following—and the reason for that insertion is that there is no method by which charges may be preferred against the President. That section carries with it the idea that charges may be preferred against any officer or any member through the President, but exempts the President from any charges; and while we know that our presidents are always by personal character exempt from charges, we must make some provision for possibilities. The amendment that was handed to us, offered last year, is as follows:

"In case charges are preferred against the president of the society which may entail discipline or removal from office for malfeasance or nonfeasance in office such charges must be preferred in writing signed by ten members of the society, and transmitted to the secretary for presentation to the council of the society within thirty days for such action as the council may deem just and proper. The president against whom the charges shall have been so preferred shall have the same rights and privileges as any other officer or member of any committee of the society against whom charges involving discipline or removal from office for malfeasance or nonfeasance in office may have been preferred."

Your committee moves the adoption of that by-law. Seconded and carried unanimously.

DR. DOUGHERTY: Next is to amend the By-Laws, Chapter III, Section 10, in regard to the procedure of electing; to read "All nominations shall be made on the first day of the meeting. The nominations are to be printed on one or more ballots to be voted on the second day as at present."

Your committee moves the following substitute for adoption, and we do it with the idea of shortening the time of election and making things more clearly understood by the delegates:

"The first order of business on the day designated in the preceding section shall be nominations for officers, censors, chairmen of standing committees and delegates to the American Medical Association. After all nominations shall have been made the secretary shall cause to be displayed in full sight of the delegates a list of the nominees for each office arrayed in alphabetical order, and also shall cause to be distributed a sufficient number of blank ballot for the use of the House of Delegates. These ballots shall have printed or stamped thereon the appropriate headings for each office with spaces thereunder in which may be written the name of the candidate or candidates to be voted for together with their counties. All elections for such offices shall be by ballot, each member depositing his ballot on roll call. In case no nominee for an office receives a majority of votes on the first ballot the nominees receiving the lowest number of votes shall be dropped and a new ballot be taken for that office. This procedure shall be continued until one of the nominees receives a majority of the votes cast, when he shall be declared elected.

"The following method shall govern the election of delegates to the American Medical Association: Nominations shall be made for not less than double the full

number of delegates to be elected, and the delegates shall be declared elected in the order of the highest number of votes cast until the allotted number shall have been chosen. A corresponding number in the next highest number of votes cast shall be declared alternate delegates.

"The nominations for censors shall be not less in number than the number to be elected, and they shall be declared elected in the order of the highest number of votes cast."

I move the adoption of the substitute.
Motion seconded.

DR. BEDELL, Albany: I offer the following amendment: "That on the third ballot the man standing lowest be dropped from the list." Motion seconded.

DR. ROONEY, Albany: I move that the entire matter be referred to the committee for re-writing and presentation with a subsequent report. Seconded.

THE SPEAKER: The motion is to refer this report back to the committee to report after further thought on the question. Carried, and so ordered.

DR. DOUGHERTY read the report of the Reference Committee on Prize Essays, and moved its adoption. Motion seconded.

DR. FISHER: Gentlemen, it strikes me if a man prefers a medal to the prize it would be a very good thing for us to permit him to have it. I am very much in favor of the resolution. I would like to endorse it, especially as after many years of service on this committee I shall end my term this year.

THE SPEAKER: All those in favor of the adoption of the report will signify by saying Aye; those opposed, No. Carried.

DR. DOUGHERTY: There is one other thing, and then a resolution. The report of the Committee on Principles of Professional Conduct of the Medical Society of the State of New York was referred to our committee, and we offer the following resolution: "*Resolved*, That the report of the Committee on the Revision of the Principles of Medical Ethics, as printed on pages 34 and 35 of the Annual Report for the year 1922 be, and the same are hereby approved, by the House of Delegates of the Medical Society of the State of New York; and it is further

Resolved, That the same be submitted to referendum vote of the members of the Medical Society of the State of New York by the Secretary of the Society in such manner and at such time as shall be determined by the Council of said Society; and that the members upon such reference shall vote either, "Yes," or "No," on the following proposition:

"The Principles of Professional Conduct of the Medical Society of the State of New York as approved by the House of Delegates, at its meeting on May 21, 1923, shall be binding upon the members of the Medical Society of the State of New York, the members of the component county societies, and the component district branches of the Medical Society of the State of New York, and the same shall hereafter control in lieu of the Principles of Medical Ethics of the American Medical Association adopted by a referendum vote of the Medical Society of the State of New York on May 11, 1906."

Your committee moves the adoption of the resolution. Seconded.

The Speaker put the motion and declared it was carried unanimously.

DR. DOUGHERTY: According to the law of 1918, Chapter 206, the Society shall elect annually not more than twelve nor less than six censors. Of those the president and secretary shall be members *ex-officio*. The majority of the others shall be district councillors. That makes a sliding scale, and we cannot do anything with this without an amendment to the by-laws; but in order to bring it before the house and have it adopted immediately your chairman reads the resolution of the committee on reference:

"*Resolved*, That the censors of the Medical Society of the State of New York shall be twelve in number, and that the number of District Councillors elected thereon shall be limited to six."

I move the adoption of the resolution. Seconded and carried.

The Speaker announced that the Merrit H. Cash Prize is awarded to Drs. Arthur M. Wright and Edward M. Livingston, joint authors of the paper on the subject of "Leucocytosis of Internal Hemorrhage."

DR. BRODIE, Orleans, Chairman of the Reference Committee on reports of Secretary, Treasurer, Council and Councillors, read the report of the Reference Committee and moved the adoption of the Secretary's report as printed. Seconded and carried.

Dr. Brodie moved that the report of the Treasurer be adopted as printed. Seconded and carried.

Dr. Brodie recommended the adoption of the report of the Council as printed. Seconded and carried.

Dr. Brodie recommended that the report of the Committee on Publication of the Council be adopted as printed. Second and carried.

Dr. Brodie recommended that the report of the Councillors be adopted as printed. Seconded and carried.

The Reference Committee on reports of Secretary, Treasurer, Council and Councillors was thereupon discharged with the thanks of the society.

THE SPEAKER: We will hear the report of Reference Committee C, Dr. Kosmak, of New York, Chairman.

DR. KOSMAK: "In Re, Reinstatement of Delaware County Members proposed by Dr. Booth:

"Committee recommends that Dr. Booth's resolution be not passed in the form offered, but would recommend that Dr. J. E. Safford of Stamford, a former member of Delaware County Society be advised by the Secretary of this Society to rally the faithful members of his former county society and urge them to pay their dues and assessments to County and State societies as proof of their allegiance.

"And, furthermore, to secure affiliation with neighboring counties societies until they can again become strong enough in numbers to maintain a separate organization; and that they apply forthwith to the Council of the State Society to so affiliate."

It was moved and seconded that the report be adopted. Carried.

THE SPEAKER: We will hear the report of the Reference Committee on Legal Counsel.

DR. CUNIFFE, Broix, Chairman: The Reference Committee on Report of Legal Counsel desires to state that the report is satisfactory.

The Committee feels that the percentage of members insured against malpractice under the group plan of the State Society as shown in this report, namely, forty per cent, is yet too small, and we, therefore, recommend that the County Society be more active in urging their members to secure this protection and to use it as a means of obtaining new members.

We recommend the adoption of the report. Seconded and carried.

THE SPEAKER: We will hear the report of Reference Committee C, on new business.

DR. KOSMAK: In Re, American Society for Control of Cancer: The Committee recommends that this matter be referred to the Committee on Scientific Work as the subject is obviously inappropriate for a business session of this society. Seconded and carried.

In Re, Madison County Medical Society's resolution presented by Dr. Brooks. The Committee recommends that the matter be referred to the Committee on Public Health and Medical Education as the problem presented is too extensive and important for the necessarily brief consideration of a reference committee. Seconded and carried.

DR. THORNHILL, Jefferson, Chairman Reference Com-

mittee on new business B: This Committee recommends the adoption of the resolution by Dr. Le Seur, of Genesee, as follows:

Resolved, That the House of Delegates, representing the Medical Profession of the State of New York, gratefully recognize and heartily appreciate the action of Governor Alfred E. Smith in calling representatives of the medical profession into conference on questions of medical interest to the citizens of the state, and we pledge him our hearty co-operation in the effort to secure the best interests of the citizens of the state, and we recommend that a copy of this resolution be sent to Governor Smith. Seconded and carried.

DR. THORNHILL: In the matter of the case of Dr. Charles C. Zacharie, of White Plains, being refused admission to the Westchester County Society for reasons not stated, his application having received their consideration in legal form, this committee recommends that no action be taken, inasmuch as Westchester County is only exercising its proper right to choose its members, and no new evidence in the case has been presented. Seconded and carried.

DR. THORNHILL: In the matter of the Galster case, this Committee, after consultation with the attorney for the State Society, recommends that no action be taken until the Appellate Division of the Supreme Court renders its decision; and, furthermore, we move that this society pledge to Dr. Henry C. Galster its confidence and support. Furthermore, we condemn the action of the State Charities Aid Association in publicly commenting upon this matter before the question of law now in dispute is definitely decided by the Appellate Division; and we recommend that a copy of this resolution be sent to the secretary of the State Charities Aid Association. Seconded and carried.

DR. THORNHILL: We approve of the application for retired membership of Dr. Theodore D. Mills, Middletown, a member of the Medical Society of the County of Orange, and we move the adoption of this report, inasmuch as Dr. Mills has complied with all of the requirements. Seconded and carried.

DR. ARTHUR G. BENNETT, Chairman Committee on Reports of Committee on Public Health and Medical Economics:

Inasmuch as society funds are not available for educational propaganda in the state, we feel that the best interests of the profession are to be served by seconding the recommendation of the committee and endorsing "Hygiea," and using individual effort in disseminating it throughout the state.

We commend the addition of diagnostic laboratories throughout the state. We feel that the society owes its thanks for the efforts of the committee in their survey of education throughout the United States, and feel that their recommendation that the delegates to the American Medical Association be instructed to co-operate in a movement looking toward a national standard of pre-medical and medical education should be adopted.

Upon motion duly made, seconded and carried, the report of the Reference Committee on Public Health and Education was adopted.

DR. WIGHTMAN, Chairman of the Committee appointed by President Arthur W. Booth, on the proposed change of the State Medical Journal to a weekly publication: Your committee recommends that the question of publishing a weekly journal by the Medical Society of the State of New York be postponed until means can be found for its safe and proper financial conduct.

Referred to Reference Committee C on new business.

DR. BENNETT, Chairman Committee on Reports of Committee on Public Health and Medical Economics:

We recommend that the committee continue their study of the nursing education and the abuse of medical charity. We recommend that the committee take up the nursing problem with the State Department of Educa-

tion and urge that in addition to registered nurse and trained attendant group work in public health work and industrial nursing be added.

We advise against too great control of community health problems, both by federal and state aid and direction.

We approve the report of the committee that Cornell Pay Clinic be granted more time before this society because of the position which it will assume.

We recommend that the Committee on Medical Economics continue its work in association with the State Council of Rural Social Workers.

We urge the acceptance of the recommendation of the Committee on Medical Economics that there is no necessity for the establishment of health centers nor the participation in any way in the practice of medicine by the state department of health.

We commend the committee's continued opposition to health insurance.

We recommend fully the report number six, on workmen's compensation.

We move the adoption of this report.

Seconded.

DR. ROONEY, Albany: I should like to propose the following amendment, that the house adopt the report of the committee with the exception of that paragraph that speaks on the subject of association with the committee on rural and social welfare. My amendment will not prevent the committee from keeping in touch with this situation; but it will not allow them to function under the ægis of the health delegates of the State Medical Society of New York, and, in effect, they will be bound by the resolution of the House.

THE SPEAKER: The question is on the amendment. All those in favor of the amendment introduced by Dr. Rooney will say Aye; those opposed No. Carried.

Now the question is on the report of the committee as amended. Is there any discussion upon that? If not, all those in favor will say Aye; opposed, No. Carried.

DR. ROONEY, Albany: I move that the authorization of the Past Council in relation to the representation upon this committee be continued. Seconded and carried.

The Reference Committee on Reports of Public Health and Economics, having finished its duties, was discharged with the thanks of the House.

DR. THOMAS C. CHALMERS, Queens, Chairman Reference Committee on Speaker's address: Your Committee has carefully considered this report and wishes to compliment the Speaker for the excellent work which he has done in the revision of the Principles of Ethics.

We wish to call the attention of the members of the profession especially through this House of Delegates and their County Societies to Sections 29, 30, 36, 37 and 38, and also to Appendix 2 "Medico Legal Principles."

We recommend that the Revision presented by the Committee on the Principles of Professional Conduct be adopted by the House of Delegates and a Referendum vote of the membership of the Society be ordered on the Principles of Professional Conduct of the Medical Society of the State of New York.

Since the method of holding elections as provided in Chapter III, Section 10 of the By-Laws is cumbersome and inoperable we recommend that the first order of business on the day designated in the preceding section shall be the nomination of officers, censors, chairmen of standing committees, and delegates to the American Medical Association. After all nominations for each office have been made the secretary shall display the name of the nominee and his county in alphabetical order in full sight of the delegates. He shall cause to be distributed a sufficient number of blanket ballots which shall have a heading for each office, with blank line below on which the name of the nominee voted for shall be written by the delegates voting.

Each delegate shall deposit his ballot on roll call.

In case no nominee for an office shall receive a ma-

jority of the votes cast upon the first ballot, the same names shall be displayed by the secretary and a second ballot taken in the same manner. If no candidate shall receive a majority of the votes cast on this second ballot, then the name of the candidates receiving the lowest number of votes shall be dropped, and a new ballot taken as above. This procedure shall continue until one of the nominees receives a majority of the votes cast.

In the election of delegates to the American Medical Association at least double the number of nominations shall be made than there are vacancies to be filled, and those names receiving the highest number of votes shall be declared elected "Delegates to the American Medical Association" and those receiving the next highest number of votes up to the number of delegates shall be declared "Alternates to the American Medical Association."

I move the adoption of the report. Seconded.

THE SPEAKER: That portion of the report relating to the second portion of the speaker's address as to by-laws, etc., will be referred to the Committee on Constitution and By-Laws who will report at a later time.

DR. CHALMERS: I move the adoption. Seconded and carried.

DR. CHALMERS: Report of the Reference Committee on Scientific Work: Your committee wishes to compliment the chairman and members of this committee on the excellent program that they have arranged for this meeting.

We especially commend the decision of the committee in setting aside Thursday as a day of clinics on which no papers shall be read. We regret again that the section on eye, ear, nose and throat should be dilatory and ignore the ruling of the committee as to the clinic day, and we recommend that the chairman of this section be required to conform to the ruling of the Committee on Scientific Work.

I move its adoption. Seconded.

DR. BEDELL, Albany: I move to amend the report by deleting that portion which referred to the Eye and Ear Section. Seconded and carried.

THE SPEAKER: Now for the report as amended. All those in favor will say Aye; those opposed No. Carried.

The Committee on Report of Speaker and Scientific Work having finished its duty was discharged with the thanks of the house.

DR. O'REILLY, Kings: I move that a section on Medical Civics be created before which matters affecting the profession and the people it serves may be discussed; and, if I may explain the purpose of my motion, I am officially informed that a subject such as the discussion of the Medical Practice Act and other things could properly be considered by the House of Delegates under any group of various section meetings. We have many of these things which cannot properly be discussed in a hurry, and I would like to see a section on Medical Civics created by this body. Seconded.

THE SPEAKER: Referred to the Committee on Constitution and By-Laws.

DR. BEDELL: I move that we adjourn until 8 P. M. Motion seconded and carried.

EVENING SESSION

The House of Delegates reconvened at 8 P. M., and was called to order by the Speaker, Dr. E. Eliot Harris.

DR. LE SEUR: Report of the Reference Committee on Report of Committee on Legislation.

1. The Committee recognizes the efficient work of the Legislative Committee during the past year, and recommends that the Bureau be continued, and that it be given increased adequate facilities to enable it to conduct the work as it may desire to do.

2. The Committee recommends that some means be instituted toward increasing the knowledge of the public on matters pertaining to State legislation.

3. We approve of the action of the Council in giving power to call together the Legislative Chairmen of the County Societies throughout the State, believing that in this way the interest of the citizens of the State in medical legislation is increased and necessary information is thus promulgated.

We recommend that two or more meetings of the Chairmen of the Legislative Committees and the officers of the Medical Society of the State of New York be held, one at least before and one during the session of the Legislature, in order that the State, as represented through its Legislative Chairmen and State Officers, may meet the Legislature and the Governor for conference on important topics.

4. We approve of recommendation No. 4.

5. We recommend that the same rule be enforced regarding individual members of the State Society appearing unofficially at hearings before Legislative Committees or the Governor, until they have first communicated with the Committee on Legislation.

We approve of recommendation No. 6.

We approve of recommendation No. 7.

In line with the eighth recommendation, we recommend that the State Society, through its House of Delegates or accredited committees thereof, pass upon the following questions for the purpose of guiding the Committee on Legislation for the ensuing year:

a. That the State Society voices no objection to medical inspection in schools when the same is undertaken by local practitioners in that jurisdiction, but voices its strongest opposition to treatment instituted by other than the family physician or by his recommendation.

b. The Committee recommends that the Legislative Committee be directed to introduce a bill requesting an amendment to the Workmen's Compensation Law, allowing free choice of physicians.

c. The Committee recommends that the Society go on record as unalterably opposed to any Anti-vivisection Law.

d. The Committee recommends that the Society repudiate the assumption as voiced in the so-called Child Experimentation Bill.

e. The Committee recommends that no person be authorized to practice any form of the healing art in the State of New York, until they have complied with the requirements of the State Board of Regents.

The Committee congratulates the Society on the present standard of medical education, and trusts that it may be continued.

f. The Committee recommends that the present chairmen of local boards of control of such State institutions as the Hospital for Crippled Children at Haverstraw, State Hospital for Cancer, known as the Gratwick Laboratory at Buffalo, and Ray Brook Sanitarium, be continued. And that they are opposed to further centralization of control of State institutions, believing that local boards, from their knowledge of local conditions, are best qualified to exercise supervision of such institutions.

What is the attitude of the State Society toward the State's acceptance of the Sheppard-Towner Act of Congress? Opposed.

What is the attitude of the State Society toward the Birth Control measure? Opposed.

9. a. We recommend the enactment of a bill similar to Assembly Print No. 2343, of this year, transferring the civil prosecution of illegal practitioners of medicine from the district attorneys of the individual counties and placing the same in the hands of the State Attorney General.

b. We recommend a bill which will give rights to physicians in relation to the recovery of remuneration for services, from the estate of a deceased person, or from funds received in payment of damages to the patient.

THE SPEAKER: All those in favor of the adoption of the report of the Reference Committee on Legislation will signify by saying Aye; those opposed No. Carried.

DR. CAMPBELL, Chairman Reference Committee on President's address:

Your Committee feels that the President's address contains many suggestions of vital importance to the future development of this Society, and the problems which it imposes should receive the most careful consideration from this House of Delegates.

Where our attention is called to the size of our membership, the wide extent of territory and the heterogeneous population, producing varying types of professional men to whom the State Society must make a vital appeal by the promulgation of such measures as will integrate its various interests and help it to function as a united body.

The Governor's request for the appointment of a Medical Advisory Board marks a step forward in the potential influence of the State Society in matters of Public Health. It is an asset to be fostered, and a real opportunity, to be met in a fine spirit of hearty cooperation; that the Governor's experiment may be so satisfactory and helpful we hope that this invitation will be continued from year to year.

The specific recommendations of the President are three:

First: As has been recognized by former administrations the duties of the chairman of the Legislative Committee as now constituted are too onerous to place on the shoulders of any active practitioner. This function in the past has been performed at great personal sacrifice and its continuance can not be commended. The recommendation therefore that a paid executive officer be appointed to assume the details of this office are hereby approved. This to be done without in any way abrogating the functions of the Legislative Committee as now organized.

Second: The Journal as a monthly publication with an editorial staff as now organized is not meeting the needs or attaining the splendid possibilities which this publication promises. As the President points out, its limitation in size, infrequency of publication, especially during the sessions of the State Legislature, the length of time during which scientific papers must remain unpublished and the obvious injustice to the authors and the majority of our membership unable to hear the papers read are potent reasons for endorsing the President's recommendation that steps be instituted to publish the Journal weekly, and the inauguration of a paid editor who should devote his entire time and energy to produce a Journal worthy of our dignity and importance in the medical world.

Third: Annual Dues: It is obvious that the foregoing recommendations cannot be achieved without a more adequate income. The President recommends "that the annual dues be increased sufficiently to meet the increased requirements of our budget." It is obvious that no rational increase can even be suggested unless it is founded on a Budget Plan prepared after careful study of the needs of the Society. Your Committee therefore recommend that a committee be appointed to prepare a budget and a plan by which it may be financed so that the Society may develop its usefulness and possibilities commensurate with its normal development.

DR. PHILLIPS, New York: I move its adoption.

DR. VANDER VEER: I move an amendment, that the Chairman of the Committee on Legislation be empowered to employ his own executive or assistant in Albany for the length of life of the legislative session. Seconded.

Amendment accepted.

THE SPEAKER: All those in favor of the report as amended will signify by saying Aye; those opposed, No. Carried.

DR. KOSMAK, Chairman Reference Committee C on new business: In Re, the resolution of Dr. J. J. A. O'Reilly, of Kings. Your Committee recommends that this matter be presented for the consideration of the delegates to the A. M. A. meeting at San Francisco, without instructions, in order that after their careful study of this intricate problem they may act as the circumstances demand. I move the adoption of that recommendation. Seconded and carried.

DR. KOSMAK: In Re, the report of the Committee appointed by the President on the proposed change of the State Medical Journal to a weekly publication. Your Committee recommends that the question of publishing a weekly journal by Medical Society of State of New York be postponed until means can be found for its

safe and proper financial conduct. Seconded and carried.

DR. DOUGHERTY: The report on change of Chapter III, Section 10, has been considered, and we recommend the following, and move its adoption.

"The first order of business on the day designated in the preceding section shall be nominations for officers, censors, chairmen of standing committees, and delegates to the American Medical Association. After all nominations shall have been made the Secretary shall cause to be displayed in full sight of the delegates a list of the nominees for each office arrayed in alphabetical order and also shall cause to be distributed a sufficient number of blanket ballots for the use of the House of Delegates. These ballots shall have printed or stamped thereon the appropriate headings for each office with spaces thereunder in which may be written the name of the candidate or candidates to be voted for together with their county.

All elections for such offices shall be by ballot, each member depositing his ballot on roll call. In case no nominee for an office receives a majority of votes on the second ballot the nominee receiving the lowest number of votes shall be dropped and a new ballot taken for that office. This procedure shall be continued until one of the nominees receives a majority of the votes cast when he shall be declared elected.

The following method shall govern the election of delegates to the American Medical Association. Nominations shall be made for not less than double the full number of delegates to be elected; and the delegates shall be declared elected in the order of the highest number of votes cast until the allotted number shall have been chosen; a corresponding number in the next highest order of votes cast shall be declared alternate delegates.

The nominations for censors shall be not less in number than the number to be elected and they shall be declared elected in the order of the highest number of votes cast.

Seconded.

DR. CHALMERS, Queens: I understood Dr. Dougherty to say that the spaces shall contain the name of the candidates together with his county. I think that the intention is that the secretary shall place upon the board the name of the candidate with his county; not necessarily to write it in.

DR. DOUGHERTY: I accept the amendment.

THE SPEAKER: All those in favor of the amendment will say Aye; opposed, No. Carried.

Those in favor of adopting Chapter III, Section 10 as amended will say Aye; those opposed, No. Carried unanimously.

DR. DOUGHERTY: One other resolution that was referred to is with regard to the formation of a section on Civic Medicine. The Committee disapproves the resolution to increase the number of sections, first, because it is impossible for men in general practice to cover the meetings as now held; and, second, because there is no need, or evidence of need for the proposed new section. If, however, a sufficient number of the members evidence a desire for the formation of such a section it is recommended that the Council take appropriate action in the matter.

I move the adoption of this report. Seconded and carried.

DR. BENNETT, Chairman Committee on Public Health and Medical Economics: The Reference Committee has considered the following resolution passed by the House of Delegates of the Medical Society of the State of California and the recommendation of the Committee on Medical Economics, and agrees that it should be referred to the House of Delegates as a whole.

Whereas: It always has been and is the primary purpose of physicians to give trained, scientific, sympathetic service to all of their fellow citizens who need medical advice and to furnish this service to all alike, regardless of the social or financial standing of the patients, and

Whereas: It never has been and is not now neces-

sary to interpose any agency not under the direct supervision and control of competent members of the medical profession, members are reminded of the dangers of co-operation in agencies where such supervision and control does not exist, and

Whereas: In order to re-emphasize these policies and practices to all citizens of California, and to counteract the influence going about the State to the effect that consideration by physicians for those needing medical advice can be obtained only by applying to some non-medical organization, and in order that the public may be fully informed and free to call directly upon the physician of its choice with the assurance of sympathetic and confidential consideration, therefore, be it

Resolved: By the Medical Society of the State of California, and representatives of all county and other constituent organizations, in convention assembled, that the office of each of its 4,000 members throughout the State is a "Health Center" of the kind that means the best medicine and public health advice that physicians can give; this upon the basis that those who can pay in full should do so, those who can pay in part should do so, and those who are unable to pay should have the service without cost.

Resolved: That in order to secure special financial consideration the patient is requested to execute and sign a paper showing his socio-financial status and setting forth briefly the reasons why he must ask for special financial consideration, this being the policy now being followed by clinics and welfare organizations of all sorts.

The State Society will supply each of its members with appropriate blank forms for this purpose, and will furnish one to any citizen who desires to use it. One of these forms presented to any member of the State Society in any part of the State will insure the courtesies and special consideration that his condition warrants and, in addition, he will receive the same sympathetic, confidential, constructive help that is given to the person who is able to pay fully for all that he requires. In carrying out this program, physicians reserve the right, when they think wise, to check up on the accuracy of the applicant's statements in an unobtrusive and sympathetic manner, in exactly the same way as those reports are now being checked up by clinics and other welfare organizations. Members also reserve the right to refer applicants for special consideration to other physicians under the same conditions and for the same reasons that they would refer patients paying regular fees. Any sick person in any part of the State of California who fails, for any reason, to secure adequate medical attention is requested to communicate with the Secretary of the State Medical Society, 1016 Balboa Building, San Francisco.

There are two outstanding features of this resolution. The first is that physicians are ready to render services to any person requiring professional care; that those who are able to pay the physician's regular fees should do so; that those who are able to pay part should do so, and those who are unable to pay any fee should have the services just the same, and that all services, regardless of the status of the patient, will be rendered in the same high grade confidential and sympathetic manner. The other important feature is that the resolutions demonstrate the fact that it never has been and is not now necessary to interpose any non-medical agency, like a Board of Directors of a dispensary or a State or Municipal Department of Health, between the physician and his patient.

It is expected that the whole practice of medicine will, through the action of this system, come under the direct supervision and control of the members of the medical profession.

This report is presented to the House of Delegates with the request that it record its general attitude in reference to this type of plan, and that it request the members of the Medical Society of the State of New York to communicate with the Committee on Medical

Economics, giving their views and constructive criticism, with the object in view of enabling your Committee to present some definite plan to the House of Delegates in 1924.

HENRY LYLE WINTER, *Chairman.*

DR. ROONEY, Albany: I move that this whole matter be referred back to the Committee on Medical Economics to report upon this scheme of the State of California at the next meeting of the House of Delegates in 1924. Seconded and carried.

DR. CHALMERS, QUEENS: I move to amend Article V, Section 1 of the Constitution, substituting for the word "A" before the word "Vice-President," the word "four" (4) and after the word "Vice-President" add the letter "s," and "who shall reside as near as practical in different geographical sections of the state," so that that article will read: "The officers of the society shall be a President and four vice-presidents who shall reside as near as possible in different geographical sections of the state."

Motion seconded.

THE SPEAKER: That will be placed on file with the secretary to be acted upon next year.

DR. DOUGHERTY: I am requested to introduce the following proposed amendments to the Constitution and By-Laws of the Medical Society of the State of New York. I would like to say that these have been drawn up by our legal counsel of the Medical Society of the County of New York and supervised by the legal counsel of the Medical Society of the State of New York. They were drawn up on account of the insufficiency of the By-Laws of the County Societies in dealing with the admission of members and particularly with appeal from the action of the different county societies in refusing admission.

A. Amend Article IV, Section 2 of the Constitution to read as follows:

"Active members of the component county medical societies *ipso facto* shall be active members of this society."

B. Amend Chapter I, Section 1, of the By-Laws by omitting therefrom the words "in good standing."

The amended Section 1 would read:

"Sec. 1. A copy of the roster of members of component county medical societies certified by the Secretary of such society to be correct shall be *prima facie* evidence of the right of the members whose names appear therein to membership in this Society."

C. Amend Chapter I, Section 4, of the By-Laws to read as follows:

"Sec. 4. Any member who may be suspended for any period or expelled from membership by the component county medical society of which he is a member shall be suspended for the same period or expelled from membership in this society, subject to his right of appeal to this society; any member of such county society not in good standing therein shall not be a member in good standing of this society; and any member ceasing to be a member of such county society shall cease to be a member of this society."

D. Amend Article VI, Section 2, of the Constitution by removing therefrom all provisions relating to discipline. The amended Section 2 would read as follows:

Sec. 2. The House of Delegates shall be the legislative body of the Society; shall be charged with the general management, superintendence and control of the Society and of its affairs, and shall have such general powers as may be necessarily or properly incident thereto. It may provide for a division of the scientific work of the Society into appropriate sections and for the organization of the District Branches. It may adopt rules and regulations for its own government and for the administration of the affairs of the Society and may delegate to the Council such power and authority as may be necessary or proper for the efficient administration of the affairs of the Society while it is not in session."

E. Amend Article VI of the Constitution by adding thereto a new Section 3, to read as follows:

"Sec. 3. The House of Delegates shall have the

power to expel, suspend or otherwise discipline component county medical societies or any member of this society, and to hear and determine all appeals taken from final decisions of the Board of Censors."

F. Amend the entire Article VIII of the Constitution to read as follows:

ARTICLE VIII.

Censors.

"Sec. 1. The Society shall elect annually not more than twelve nor less than eight Censors, eight of whom shall be the President, the Secretary and the District Councilors. In the event of the President's absence or inability to act, the Vice-President shall be a Censor *pro tempore* in the President's stead. Five Censors shall constitute a quorum.

"Sec. 2. The Board of Censors shall have jurisdiction to hear and determine, subject to appeal to the House of Delegates, all appeals taken from final decisions of any component county medical society refusing admission to membership therein of any applicant or involving the rights or standing of any member therein in relation to any other member therein, to such county society or to this society.

"Sec. 3. The Board of Censors shall have original jurisdiction to hear all charges preferred (1) by a member of one component county medical society against a member of another such county society; (2) by a member of this society against any component county medical society of which he is not a member; and (3) by a component county medical society against another such county society, and shall submit to the House of Delegates for final determination a copy of such charges together with its record of proceedings, findings of fact and recommendations with respect thereto."

G. Amend Chapter III, Section 3, of the By-Laws by adding thereto provision respecting charters for new societies, now contained in Section 5 of said Chapter. The revised Section 3 would then read as follows:

"Sec. 3. The House of Delegates shall make careful inquiry into the condition of the profession in each county of the State, and shall have authority to adopt such methods and measures not in conflict with the Constitution and By-Laws of the society as it may deem most efficient for building up and increasing the interest in such county societies as already exist, and for organizing the profession in counties where societies do not exist and for organizing district branches. Upon proper application, it shall provide for the issuance of charters to county societies in affiliation with this society."

H. Amend Chapter III, Section 5, of the By-Laws to read as follows:

"Sec. 4. (A.) An appeal may be taken to the House of Delegates from any final decision of the Board of Censors by any party thereto affected thereby. The appellant shall file with the President, Vice-President or Secretary of this Society, within six months after the rendition of the decision so appealed from, a notice of appeal which shall set forth in writing the date and substance of such decision. The Board of Censors shall submit to the House of Delegates, upon request of any officer of this society, all records, letters, papers, documents, digests and minutes of testimony or proceedings, and all written evidence relating to the decision appealed from which shall have been submitted to, received by, or taken or prepared by the Board of Censors, together with a report, signed by any one of the Censors, briefly summarizing the proceedings taken and the evidence considered by the Board of Censors in arriving at such decision. Upon the data and report so received, the House of Delegates, by a majority vote, shall make a final order either affirming, modifying or revising the decision appealed from, which order shall be conclusive and binding upon all component county medical societies and all members of this society affected thereby. Such data and report shall be confidential and privileged and available only to members of the House of Delegates. Upon making such

order, the House of Delegates shall return all data originating with a component county medical society to such society, and all data originating with the Board of Censors to that Board.

"(B.) The House of Delegates, upon the findings, recommendations and data submitted to it by the Board of Censors in accordance with Chapter V, Section 2 of the By-Laws of this society shall consider all charges preferred pursuant to Section 3 of Article VIII of the Constitution of this society, and, by a majority vote, shall expel, suspend or otherwise discipline the accused or dismiss such charges. Such action of the House of Delegates shall be conclusive and binding upon all component county medical societies and all members of this society affected thereby.

"Such findings, recommendations and data shall be confidential and privileged and shall be available only to members of the House of Delegates, and shall be returned to the Board of Censors upon final disposition of the charges by the House of Delegates."

Amend Chapter V of the By-Laws to read as follows:

"CHAPTER V.

"Censors.

"Sec. 1. (A.) Any member of any component county medical society, feeling aggrieved at the action of such society may within six months after such action shall have been taken, appeal to the Board of Censors of this society from the decision of such component county medical society, and any applicant for membership in such component county medical society who may have been excluded from membership in such society, may likewise appeal from the action of said society excluding him.

"(B.) The appellant shall file a notice of any such appeal with the President, Vice-President or Secretary of this society and a copy thereof with any officer of the component county medical society from the decision of which appeal is being taken. Such notice shall set forth in writing the name of the appellant, the name of such component county medical society and the date and substance of the decision appealed from, and shall indicate the ground or grounds upon which such appeal is taken.

"(C.) Upon receipt of such notice of appeal, the component county medical society shall submit to the Board of Censors all records, minutes, letters, papers, documents and all written evidence including a digest of all testimony not stenographically reported, relating to the matter, the decision in which has been appealed from, which shall have been submitted to, received by, or taken or prepared by such county society. All data so submitted shall be confidential and privileged and shall be available only to the Censors, and, on appeal, to the members of the House of Delegates; and shall be returned to the component county medical society upon the expiration of the time given in which to appeal to the House of Delegates from a decision by the Board of Censors, or, on appeal, submitted to the House of Delegates.

"(D.) The Board of Censors shall consider the appeal on the data so submitted to it, and may affirm, modify or reverse, by a majority vote of not less than five censors, the decision so appealed from. If, in its opinion, the taking of further evidence is advisable, the Board of Censors may proceed to take such evidence in such manner as it may deem proper, and may summon as witnesses members of this society, in the manner provided for in Section 2 of this Chapter, and, upon the whole case, render such decision.

"Sec. 2. (A.) All charges specified in Section 3 of Article VIII of the Constitution of this society shall be presented in writing to the Board of Censors, which shall meet and consider such charges and the evidence submitted in support thereof. If at least five of the Censors are of the opinion that any such charges are well founded, the Board of Censors shall cause to be served upon the individual or upon the Secretary of the component county medical society so accused a copy of such charges together with a notice and summons which

shall specify the place and time (which shall not be less than two weeks after service of such notice and summons) where and when the Board of Censors will hear the evidence on such charges, and which shall require the presence, at such time and place, of the individual or of an officer or representative of the component county medical society so accused.

"(B.) A meeting of the Board of Censors shall be held at the time and place specified in such notice and summons, at which, or at any adjournment thereof (no notice of which need be given) the evidence in such charges shall be heard and considered. The Board of Censors may call any member of this society as a witness at any such meeting by serving upon him a reasonable time before such hearing, a summons in writing, which shall specify the time and place of such meeting and shall require him to be present and to testify thereat. Witnesses so summoned shall be reimbursed by the society for expenses, if any, necessarily incurred by obedience to such summons.

"(C.) The Board of Censors shall consider all of the evidence with respect to such charges and shall make findings of fact and recommendations with respect thereto. It shall submit such findings and recommendations, signed by at least five of the Censors, to the House of Delegates, together with a copy of such charges and record of its proceedings with respect thereto, consisting of proof of proper service of the notice and summons, and all papers, letters, documents, minutes of hearings and meetings and all written evidence which shall have been submitted to, received by, or taken or prepared by the Board of Censors.

"(D.) The intentional violation or disregard of any of the provisions of the Constitution, By-Laws or resolutions of this society or of any summons of the Board of Censors, and the commission of any act which unfavorably affects the character, dignity, or interests of the medical profession, or of this society, or of any component county medical society, or of any one or more members of this society, shall be cause for discipline."

THE SPEAKER: These will be placed on file to be acted on next year.

DR. ROONEY, Albany: I wish to propose an amendment to the By-Laws, adding a new section to Chapter I, the title of which is "Membership," to bring it in conformity with the by-laws of the Medical Society of the County of New York, so that the section will read: "No applicant shall be eligible to membership if his diploma or license be of a sectarian character unless the applicant declare in writing his or her abnegation of sectarian title." Seconded.

THE SPEAKER: It will be placed on file to be acted on next year.

DR. STANTON, Schenectady: I move that we have a paid executive secretary, and that we resolve ourselves into an informal discussion of the subject. Seconded.

THE SPEAKER: It is regularly moved that this house resolve itself into an informal discussion of a paid executive secretary. All those in favor say Aye; opposed, No. Motion lost.

DR. JONES, Chairman, presented the following report of Reference Committee "A" on new business:

Dr. Booth, President of the Medical Society of the State of New York, having arisen to the question of personal privilege, asked that certain publications be referred to a Committee for consideration and report, with the view of having the Committee and the House of Delegates determine whether the president and the members of the Governor's Advisory Committee, and other members of the Society mentioned in these publications, are entitled to the confidence of the society.

This matter was referred to Reference Committee "A," which makes the following report:

The Committee examined each of the publications referred to.

Bulletin No. 1, appearing in May, 1923, issue of THE NEW YORK STATE JOURNAL OF MEDICINE, bearing the

signature "The Physicians' Protective Association, 500 Electric Building, Buffalo, N. Y.," addressed "Dear Doctor"—apparently a communication which was addressed to the members generally of this society.

Bulletin No. 1 refers to the appointment by Governor Smith of a group of fourteen physicians, headed by Dr. Booth, and states that this list of physicians was "handed" to the Governor, and by innuendoes suggests that they are a "crowd" of medical politicians and promoters, and that in performing, at the Governor's request, their functions as a committee, they used the Hearst newspapers to spread their propaganda, and employed "ballyhoo" methods to jam through the Bloch bill, and that they were working in their own interests; and that these men, together with certain others, were working to boost private sanatoria for the treatment of drug addicts, and that thereby they were unfaithful to the trust reposed in them by the Governor when he appointed them as his advisers.

The other documents considered as emanating from the Physicians' Protective Association add nothing new to the statements contained in Bulletin No. 1.

The authorship or responsibility for the articles appearing in the publication *Truth* has not been established to the satisfaction of the Committee.

The Committee heard Dr. Edward E. Haley and Dr. F. M. O'Gorman, of Buffalo.

Dr. Haley stated that he was President of the Physicians' Protective Association, and it appeared from his testimony that he had no personal knowledge of the contents of Bulletin No. 1 before the same was sent to the members of this society; that the material contained in that Bulletin was furnished by Dr. James Gardner, Secretary of that organization.

There appeared before the Committee to give information in regard to these matters, Drs. Wendell Phillips, Samuel J. Kopetzky, Albert Lytle, DeWitt Sherman, S. Dana Hubbard, Grover W. Wende and Dr. Bennett.

After considering all of the facts presented, the Committee finds that there is no justification whatsoever for the aspersions cast upon the President of this Society, or the members of the Governor's Medical Advisory Committee, or any other members of the Society, who are referred to in that communication, and that the charges that the President of this society and the Medical Advisory Committee were a "crowd" of medical politicians and promoters, who used the Hearst newspapers to spread their propaganda, and by cheap and improper "ballyhoo" methods attempted to jam through the Bloch Bill, and that in performance of their duties as members of the Governor's Medical Advisory Committee, were working in their own interests, are in all respects utterly false and without the slightest justification or excuse.

And the further charge that these men were performing their services as members of the Advisory Committee to boost private sanatoria has no justification whatsoever.

We feel that as members of this Society we are all personally vilified, and we believe that some action might be justly taken in order to prevent a recurrence in future of any such unjustified attacks.

We therefore make the following recommendations:

(1) That Dr. Booth, the President of the Society, and the members of the Governor's Advisory Committee, and the members particularly addressed, whose names are mentioned in said Bulletin No. 1, Wendell Phillips, Samuel J. Kopetzky, Alexander Lambert, Royal S. Copeland, S. Dana Hubbard, and Carleton Simon have been unjustly attacked and falsely maligned, and these men who are members of this society and hold offices of trust and responsibility therein, are entitled to the fullest confidence of the society; and the committee further deplore the fact that the false statements contained in this Bulletin No. 1 have received such undue publicity and circulation;

(2) That the members and officers of this Society who give their time and efforts unselfishly and devotedly for the interest of the public and of the pro-

fession, should have the protection of the society against unwarranted vilification and abuse, and that the society should take proper steps, through its proper Committee, for the discipline of anyone found responsible for the present attacks.

It was moved and seconded that the report be adopted. Carried.

DR. ROONEY, Albany: Inasmuch as at a meeting of the Board of Trustees of the American Medical Association of Chicago, November 10-12, 1921, it decided in regard to pay clinics that "The principles deemed basic are: (1) That patients should be received by the clinic only when sent by the family physician or received with his knowledge and approval; (2) So far as feasible the patient should be returned to the family physician with written information and suggestions; (3) that the fee charged by such clinic should not be less than the fee charged in general practice so that, so far as possible, competition of the clinic with the general practitioner should not occur, and the chief consideration should be the public and the medical profession"; therefore, be it

Resolved, That this be the expression of the opinion of the Medical Society of the State of New York.

THE SPEAKER: Referred to Committee "C" on new business.

It was moved that the rules governing Reference Committees be suspended. Seconded and carried.

DR. COVILLE, Tompkins: I move you that the resolutions just passed by the House of Delegates on the matter reported upon by the Reference Committee "A" be published, together with the names of all those incorporated in the various previous publications. Motion seconded.

DR. O'REILLY, Kings: I rise to a point of information, if the Counsel of the Society is present, as to whether in his judgment such a motion adopted by this body might not expose this body as an incorporated institution to serious legal difficulties?

The Speaker referred the question to the Legal Counsel.

MR. WHITESIDE: If the publication should repeat the statement contained in the original article it would be a repetition of the libel, which would make the society liable, unless the publication were of such a character as to omit the repetition of the libelous matter, and it would be unsafe. You have to publish your resolution without repeating the matter to make it safe.

DR. BEDELL, Albany: With the consent of the House, I move you, sir, that the wording of this resolution of Dr. Coville be referred to our legal counsel, so that there shall be no question as to its legality. Seconded.

DR. DOUGHERTY, New York: I move that the whole matter be referred to the counsel for action.

DR. BEDELL: I accept that.

THE SPEAKER: The motion is on reference to the legal counsel for proper wording. Those in favor will signify by saying Aye; those opposed, No. The question is so referred.

DR. KOSMAK: Your committee recommends the adoption of the resolution of Dr. Rooney with reference to pay clinics. Seconded and carried.

DR. FISHER: I move that charges be preferred against the members of the Medical Society of the State of New York who issued the statement; that the charges be referred to the Board of Censors, and that these men be brought to trial before them. Seconded.

THE SPEAKER: I should like to hear the opinion of the legal counsel as to whether the State Censors have jurisdiction in such a matter.

MR. WHITESIDE: I wish to advise you that the Board of Censors of the State Society has no original jurisdiction to try the charges.

THE SPEAKER: The motion as presented, is, therefore, ruled out of order.

DR. ROONEY, Albany: I move we adjourn, to 9:30 tomorrow morning. Carried.

MORNING SESSION, MAY 22, 1923.

The Speaker called the meeting to order, and stated that the first order of business was calling the roll.

The Assistant Secretary called the roll and the following delegates responded: Clinton B. Hawn, Andrew MacFarlane, Clarence E. Mullens, Chauncey R. Bowen, J. Lewis Amster, Harry Aranow, Edward R. Cunniffe, Cornelius J. Egan, Joseph Popper, Norman Roth, Edmund E. Specht, Maximilian Zigler, Jacob E. K. Morris, Harry S. Bull, Josiah W. Morris, John C. Fisher, George DeB. Johnson, Leo F. Schiff, Sherwood V. Whitbeck, Charles D. Ver Nooy, Robert W. Andrews, John A. Card, James E. Sadlier, Arthur G. Bennett, Edward E. Haley, Earl P. Lothrop, Francis Argus, Francis M. O'Gorman, William M. Mehl, De Witt H. Sherman, Grover W. Wende, Sylvester C. Clemens, John W. LeSeur, William A. Wasson, U. Grant Williams, Page E. Thornhill, Lewis P. Addoms, Robert F. Barber, Alfred Bell, Arthur H. Bogart, William F. Campbell, Roger Durham, Russell S. Fowler, Charles H. Goodrich, Charles A. Gordon, George D. Hamlin, Richard A. Henderson, O. Paul Humpstone, Frank D. Jennings, John E. Jennings, J. Richard Kevin, Walter D. Ludlum, John J. Masterson, John F. W. Meagher, Harold A. Morris, John J. A. O'Reilly, John J. Sheehy, Charles E. Scofield, John G. Williams, Paul H. von Zierolshofen, William T. Shanahan, Nelson O. Brooks, James P. Brady, Irving E. Harris, Owen E. Jones, Williard H. Veeder, Floyd S. Winslow, James B. Conant, Roy D. Grimmer, George A. Newton, Theodore H. Allen, S. Dana Hubbard, Arthur F. Chace, Edward M. Colie, Jr., Daniel S. Dougherty, Ten Eyck Elmendorf, Gustav G. Fisch, Howard Fox, Robert H. Halsey, Harold Hays, Ward B. Hoag, George W. Kosmak, J. Milton Mabbott, James Pedersen, Wendell C. Phillips, Alfred C. Prentice, Abraham J. Rongy, DeWitt Stetten Howard C. Taylor, Frederick T. van Beuren, Jr., Robert E. Walsh, Samuel J. Kopetzky, Orrin S. Wightman, William A. Peart, Frederick J. Schnell, Robert L. Bartlett, Joseph L. Golly, F. M. Miller, Clements W. Blodgett, H. Burton Doust, Frederick W. Sears, Homer J. Knickerbocker, Milton A. McQuade, Albert W. Preston, Ralph E. Brodie, James E. Mansfield, Lloyd C. Warren, Thomas C. Chalmers, Henry C. Courten, L. Howard Moss, Ernest E. Smith, Charles B. Story, Joseph S. Thomas, William J. Fleming, Chester A. Hemstreet, E. Warren Presley, Vincent G. Smith, Charles D. Kline, Carl Comstock, Dudley R. Kathan, Frederick C. Reed, Lyman Driesbach, Albert W. Ferris, Deyo P. Mathewson, Herbert B. Smith, Frank Overton, William H. Ross, Luther C. Payne, George M. Cady, Luzerne Coville, Morris Maslon, Walter A. Leonard, Lucius H. Smith, Edward F. Briggs, Frank H. Knight, William H. Purdy, George B. Stanwix, Edward W. Weber, George E. Welker.

The following officers and chairmen of standing committees were present: Arthur W. Booth, E. Eliot Harris, George M. Fisher, Nathan B. Van Etten, Edward Livingston Hunt, Wilbur Ward, Seth M. Milliken, Charles Gordon Heyd, George A. Leitner, Arthur D. Jaques, Arthur J. Bedell, Edwin MacD. Stanton, John M. Quirk, Harry R. Trick, Parker Syms, James N. Vander Veer, Henry Lyle Winter, Joshua M. Van Cott, J. Bentley Squier.

The following ex-presidents were present: George H. Fox, Arthur G. Root, Charles Stover, Grant C. Madill, James F. Rooney.

Dr. Philips read the following extract from the report of the Board of Trustees and the resolution passed by the House of Delegates of the American Medical Association in St. Louis, May 23, 1922, and moved that the House of Delegates approve the action of the American Medical Association in relation to the public health activities of the American Red Cross.

"At the annual meeting in November, 1921, the Secretary of the Board of Trustees reported the result of a conference with the vice-chairman of the Central Committee of the American Red Cross, in regard to the present and proposed future activities of that organization in public health work. He also presented a copy of a letter written by him to the vice-

chairman of the Central Committee of the American Red Cross, in which the opinion was expressed that the time had arrived when the American Red Cross should cease its public health activities and should restrict its work to the relief of disabled ex-service men in the hospitals and in their homes, in addition to the purposes for which it was originally organized, as designated in its charter. The Board approved the action of the Secretary and endorsed the opinions expressed by him in the letter referred to. Apparently, the Central Committee of the American Red Cross has not modified its public health program. It is the opinion of the Board that the Association, through the House of Delegates, should take appropriate action to convince those in authority that the public health activities of the American Red Cross are no longer necessary and if continued are likely to promote community irresponsibility and helplessness in regard to its own welfare."

"*Resolved*: That the recommendation of the Board of Trustees, relative to the Public Health activities of the American Red Cross, and their advice that the House of Delegates take appropriate action to convince those in authority that the public health activities of this organization are no longer necessary, and if continued are likely to promote community irresponsibility and helplessness in regard to its own welfare."

THE SPEAKER: In order to bring that before this house it is necessary to suspend the rule governing reference committees, and if there is no objection the Speaker will declare that rule suspended. On hearing no objection, he so declared.

Motion was put, seconded and carried.

Dr. Phillips read the following resolution, adopted by the House of Delegates of the American Medical Association at the meeting held in St. Louis, May 23, 1922, and moved its adoption by the House of Delegates of the American Medical Association be approved by the House of Delegates of the Medical Society of the State of New York. Seconded.

"*Whereas*: The need and value of periodic medical examinations of persons supposedly in health are increasingly appreciated by the public, it is recommended by the Council on Health and Public Instruction that the House of Delegates authorize the Council to prepare suitable forms for such examinations and to publish them in THE JOURNAL of the American Medical Association; and that the county medical societies be encouraged to make public declaration that their members are prepared and ready to conduct such examinations, it being understood that the indigent only shall be examined free of charge and that all others are expected to pay for such examinations."

THE SPEAKER: I will ask permission to suspend the rule governing reference committees so that it may be considered by the House now. There being no objection, it is so ordered.

Motion was put before the House, seconded and carried.

THE SECRETARY: I move that the Council, aided by the legal counsel of the Society, shall report at the next meeting of the House of Delegates a revision of the Constitution and By-Laws. Seconded.

THE SPEAKER: If there is no objection I will suspend the reference rule. There being none, it is so ordered. Is there any discussion upon the question? If not, all those in favor say Aye; those opposed, No. Carried.

The following were elected members of the Committee on Prize Essays:

Dr. Lucien Howe, Chairman, Buffalo; Thomas H. Curtin, Bronx; Frederic C. Curtis, Albany.

Dr. Rooney, Albany, offered the following resolution:

"*Whereas*, The public are being imposed upon and public health seriously endangered by the practice of the healing art by the unqualified, and by the use of methods and procedures having no scientific justification or therapeutic value, therefore,

Be It Resolved, That the Council investigate these abuses and take effective measures for the protection of the same and the protection of the public health. Seconded.

The rules governing reference committees having been suspended by consent of the House of Delegates, the motion was put before the house and carried.

MR. WHITESIDE: The question was raised as to the Society being subject to legal action with reference to the publication of the alleged statements referred to in a previous session. Therefore, I was asked as to how publicity could be given to the findings of this committee and at the same time protect the society from the possibility of legal action. The following resolution will take care of this matter:

"*Resolved*, That the report of the reference committee "A," adopted by the House of Delegates, shall be given such publicity as shall meet with the approval of the Council or Executive Committee." Seconded.

MR. WHITESIDE: The purpose of that being that in advance of the publication of the matter the society should not commit itself; and that only after the matter has been prepared to be submitted for publication should consent be given. That would require that the executive function of the executive committee or the Council be employed for that purpose.

DR. PHILLIPS: I move its adoption. Seconded and carried.

DR. ROONEY: I move that in view of the false and misleading statements appearing in two of the New York daily newspapers, the *New York World* and the *New York Tribune*, on the morning of May 22, 1923, the House of Delegates direct the Secretary in association with the Legal Counsel, to prepare a statement denying the truths of these articles, and requesting these papers to publish, with as much prominence as was given the false and misleading statements, the true statement that is herewith forwarded them. Seconded and carried.

DR. ROONEY: I move you, sir, that this House take a recess to reconvene at 2 P. M. Seconded and carried.

AFTERNOON SESSION, MAY 22, 1923.

The following officers were nominated and declared duly elected:

President, Dr. Orrin Sage Wightman, New York; Vice-President, Dr. Charles O. Boswell, Rochester; Speaker, E. Eliot Harris, New York; Vice-Speaker, George M. Fisher, Utica; Secretary, Dr. E. Livingston Hunt, New York; Assistant Secretary, Dr. Wilbur Ward, New York; Treasurer, Dr. Seth M. Milliken, New York; Assistant Treasurer, Dr. Chas. G. Hcyd, New York; Chairman of Committee on Scientific Work, Dr. Andrew MacFarlane, Albany; Chairman of Committee on Legislation, Dr. James Vander Veer, Albany; Chairman of Committee on Medical Economics, Dr. Henry Lyle Winter, Cornwall; Chairman of Committee on Public Health and Medical Education, Dr. Joshua M. Van Cott, Brooklyn; Chairman of Committee on Medical Research, Dr. Harvey R. Gaylord, Buffalo.

The following delegates were declared duly elected to the American Medical Association for two years:

Drs. Arthur W. Booth, Elmira; Nathan B. Van Etten, New York; Grover W. Wende, Buffalo; William F. Campbell, Brooklyn; James F. Rooney, Albany.

Alternates: Drs. William D. Alsever, Syracuse; George M. Fisher, Utica; Albert Warren Ferris, Watkins; Alfred Prentice, New York; James E. Sadlier, Poughkeepsie.

The following Censors were declared duly elected for one year:

Drs. Edward C. Rushmore, Tuxedo; Charles C. Trembley, Saranac Lake; Harry R. Trick, Buffalo; Walter H. Kidder, Oswego; Arthur J. Bedell, Albany; Ethan A. Nevin, Newark; Thomas C. Chalmers, Flushing; Russell S. Fowler, Brooklyn; George A. Leitner, Piermont; Edward R. Cunuiffe, Bronx.

Upon motion duly made, seconded and carried, the House of Delegates of the Medical Society of the State of New York adjourned at 3:45 P. M.

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Associate Editor—ALBERT WARREN FERRIS, M.D.,
The Glen Springs, Watkins

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Medical Society of the State of New York

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Scientific Work
Andrew MacFarlane, M.D., Albany.
Medical Economics
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Legislation
James N. Vander Veer, M.D., Albany.
Medical Research
Harvey R. Gaylord, M.D., Buffalo.

COUNCIL

The above officers (with the exception of the Assistant Secretary and Assistant Treasurer), the ex-President and the Councilors of the District Branches.

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Second District—Frank H. Lashier, M.D., Brooklyn.
Third District—Arthur J. Bedell, M.D., Albany.
Fourth District—Charles C. Trembley, M.D., Saranac Lake.
Fifth District—Walter H. Kidder, M.D., Oswego.
Sixth District—John M. Quirk, M.D., Watkins.
Seventh District—Ethan A. Nevin, M.D., Newark.
Eighth District—Harry R. Trick, M.D., Buffalo.

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ATTORNEY

ROBERT OLIVER, Esq., 27 William St., New York.

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Neurology and Psychiatry

Chairman, IRVING H. PARDEE, M.D., New York.
Secretary, EUGENE N. BOUDREAU, M.D., Syracuse.

THE ANNUAL MEETING.

The New York Meeting was successful from every viewpoint, and must have very agreeably disappointed all of us who felt that the Metropolis is not a good place for a convention of a scientific membership because of the countless outside and unrelated diversions.

One hundred and fifty-eight out of a possible one hundred and seventy Delegates were registered, and were held together by a dinner at the Columbia Club before the evening session on Monday. This brilliant idea of the Chairman of the Committee on Arrangements, Dr. J. Bentley Squier, was well carried out, gave everybody a good time, and established a most valuable precedent.

The sessions of the House were marked by harmony and a general feeling that the Society had been carried through a most successful year, that the efforts of Dr. Booth had been most happy in smoothing out sectional misunderstandings, and in stimulating renewed interest in all of the activities of the Society, and that a long step forward had been made by Dr. Vander Veer in his management of legislative affairs.

The efforts of the Governor's Advisory Committee were heartily approved, and although no remedial legislation actually passed, a negative victory must be claimed through the fact that the attempts of sub-standard cults were all defeated, and a precedent for conference with the Governor concerning public health problems has been established.

Dr. Squier entertained the President, the President-elect, the other officers and other distinguished physicians at the Metropolitan Club at luncheon in his usual accomplished manner, and also maintained so high a standard at the dinner at the Waldorf that the Society would do well to elect him Chairman of the Committee on Arrangements for life.

Nearly five hundred diners enjoyed the speeches of the President, of the President-elect, of Dr. Samuel Lambert, and the dreams of the future of medical education as elaborated by the Deans of New York, Columbia and Cornell Universities.

Eleven hundred and seventy-nine registered for the scientific session and enjoyed a brilliant and valuable program more comfortably than at any session of the Society we have been fortunate enough to attend.

More than eight thousand members of the Society were unfortunately absent from this meeting. What are the proportions that we must charge to material reasons, to indifference, to diffidence, to lack of just appreciation of all of the values of the meeting, to failure of attraction, to failure of advertisement, and what shall we do to get every one possible to attend the meeting next year?

N. B. V. E.

REPORT OF REFERENCE COMMITTEE A.*

Dr. Booth, President of the Medical Society of the State of New York, having arisen to the question of personal privilege, asked that certain publications be referred to a Committee for consideration and report, with the view of having the Committee and the House of Delegates determine whether the president and the members of the Governor's Advisory Committee, and other members of the Society mentioned in these publications, are entitled to the confidence of the Society.

This matter was referred to Reference Committee A, which makes the following report:

The Committee examined each of the publications referred to.

Bulletin No. 1, appearing in May, 1923, issue of The New York State Journal of Medicine, bearing the signature "The Physicians' Protective Associations, 500 Electric Building, Buffalo, N. Y.," addressed "Dear Doctor"—apparently a communication which was addressed to the members generally of this Society.

Bulletin No. 1 refers to the appointment by Governor Smith of a group of fourteen physicians, headed by Dr. Booth, and states that this list of physicians was "handed" to the Governor, and by innuendoes suggests that they are a "crowd" of medical politicians and promoters, and that in performing at the Governor's request their functions as a committee, they used the Hearst newspapers to spread their propaganda, and employed "ballyhoo" methods to jam through the Bloch bill, and that they were working in their own interests; and that these men, together with certain others, were working to boost private sanitarium for the treatment of drug addicts, and that thereby they were unfaithful to the trust reposed in them by the Governor when he appointed them as his advisers.

The other documents considered as emanating from the Physicians' Protective Association add nothing new to the statements contained in Bulletin No. 1.

The authorship or responsibility for the articles appearing in the publication "Truth" has not been established to the satisfaction of the Committee.

The Committee heard Dr. Edward E. Haley, of Buffalo, and Dr. F. M. O'Gorman, of Buffalo.

Dr. Haley stated that he was President of the Physicians' Protective Association, and it appeared from his testimony that he had no personal knowledge of the contents of Bulletin No. 1 before the same was sent to the members of this Society; that the material contained in that Bulletin was furnished by Dr. James Gardner, Secretary of that organization.

There appeared before the Committee to give information in regard to these matters, Drs. Wendell Phillips, Samuel J. Kopetzky, Albert Lytle, DeWitt Sherman, S. Dana Hubbard, Grover W. Wende and Dr. Bennett.

After considering all of the facts presented, the Committee finds that there is no justification whatsoever for the aspersions cast upon the President of this Society, or the members of the Governor's Medical Advisory Committee, or any other members of the Society, who are referred to in that communication, and that the charges that the President of this society and the Medical Advisory Committee were a "crowd" of medical politicians and promoters, who used the Hearst newspapers to spread their propaganda, and by cheap and improper "ballyhoo" methods attempted to jam through the Bloch bill, and that in performance of their duties as members of the Governor's Medical Advisory Committee were working in their own interests, are in all respects utterly false and without the slightest justification or excuse.

And the further charge that these men were performing their services as members of the Advisory Committee to boost private sanitarium has no justification whatsoever.

We feel that, as members of this society, we are all personally vilified, and we believe that some action might be justly taken in order to prevent a recurrence in future of any such unjustified attacks.

We therefore make the following recommendations:

(1) That Dr. Booth, the President of the Society, and the members of the Governor's Advisory Committee, and the members particularly addressed, whose names are mentioned in said Bulletin No. 1, Wendell Phillips, Samuel J. Kopetzky, Alexander Lambert, Royal S. Copeland, S. Dana Hubbard, and Carleton Simon, have been unjustly attacked and falsely maligned, and these men who are members of this Society and hold offices of trust and responsibility therein, are entitled to the fullest confidence of the Society; and the committee further deploras the fact that the false statements contained in this Bulletin No. 1 have received such undue publicity and circulation.

(2) That the members and officers of this Society who give their time and efforts unselfishly and devotedly for the interest of the public and of the profession, should have the protection of the society against unwarranted vilification and abuse, and that the society should take proper steps, through its proper Committee, for the discipline of anyone found responsible for the present attacks.

Respectfully submitted,

ANDREW MACFARLANE,
C. E. SCOFIELD,
J. E. K. MORRIS,
GEORGE M. CADY,
O. E. JONES, *Chairman.*

THE AMERICAN SOCIETY FOR THE CONTROL OF CANCER

TO STATE AND PROVINCIAL CHAIRMEN AND REGIONAL DIRECTORS.

The time for the San Francisco meeting of the American Medical Association, June 25th-29th, is fast approaching, and your Cancer Society is planning certain definite things in connection with it. If you are to be there, we shall expect to see you at one or all of the following places:

1. DINNER CONFERENCE FOR CANCER WORKERS.—This will be the most important from the point of view of discussing mutual problems and exchanging ideas. It is being arranged by Dr. A. R. Kilgore, our California Chairman, at the Fairmount Hotel, Thursday, June 28th, at 7 P. M., a "Dutch Treat," not in excess of \$3.50. Dr. Rush will be present and hopes to have a brief account of work and methods from each representative and will endeavor to answer questions. An explanation of the District Cancer Campaigns, to begin next fall, will be presented and occasion had for a full discussion of organization plans and the activities proposed to be carried out. Come "as you are." Bring with you any active committeemen who may be in San Francisco.

2. The Society has accepted space in the Scientific Exhibit. A new hand-done exhibit will be shown for the first time.

3. The cancer film, "The Reward of Courage," will be shown several times on the motion picture program. Urge those who may be interested in the subject to see it.

4. Those who reach San Francisco on Sunday, June 24th, are reminded once again of the big public cancer meeting to be held in the Auditorium, at 8.15 P. M., under the joint auspices of the American Medical Association, the California State Medical Society and the American Society for the Control of Cancer. Dr. Kilgore is making up an "all star" program, with Dr. de Schweinitz presiding, and, he hopes, with one of the Mayo brothers as the principal speaker.

Those desiring to attend the dinner conference should communicate with Dr. Kilgore so he may know how many to provide for.

* Adopted by the House of Delegates of the Medical Society of the State of New York, at the Annual Meeting, held in New York City, May 21, 1923.

PRUNES.

Contributions Invited.

Right at Headquarters.

"That saloon next to the police station is doing the biggest business in town."

"It ought to—it has the best protection."—*Wesleyan Wasp*.

Nature Lover: Ah, my dear sir, isn't it a glorious day?

Irascible Fisherman: Glorious nothin'! First it was that durn bird singin', an' now it's you!

That's Different.

Socrates lifted his cup.

"What's this stuff?" he asked.

"Hemlock!" replied the cup-bearer.

"Oh!" said Socrates, "that's all right—I thought it was one of those substitutes for beer."—*Voo Doo*.

"The Confirmed Bachelor."

Mrs.: Well, dear, how do you like my new Tut gown?

Mr.: They certainly slipped something over on you!

At the Ticket Window.

Old Colored Mammy: Ise wants a ticket fo' Florence. Ticket Agent (after ten minutes of weary thumping over railroad guides): Where the devil is Florence?

Old Colored Mammy: Settin' over dar on de bench. —*Princeton Tiger*.

Marking Time.

A Negro called upon an old friend, who received him in a rocking chair and continued to rock himself to and fro in a most curious way.

"Yo' ain't sick, is yo', Harrison?" asked the caller, anxiously.

"No, I ain't sick, Mose," said Harrison.

There was a moment's silence, during which the caller gazed wide-eyed at the rocking figure.

"Den," continued Mose, "why does yo' rock yo'self dat way all de time?"

Harrison explained:

"Yo' know Bill Blott? Well, he sold me a silver watch cheap, an' if I stops moving like dis, dat watch don't go!"—*Tit-Bits*.

How to keep that schoolgirl complexion—don't put your head on other people's shoulders.

A Sad, Sad Story.

Loud laughter echoed and re-echoed in the Garden Ice Cream Parlor where men of all denominations gathered to drown their sorrows in sundaes, sodas and other vile concoctions. A man was cursing loudly and a little, golden haired lassie came in and with tear-filled eyes, walked over to the loud-mouthed individual.

"Daddy—please come home," she sobbed, "Mother is ill."

"Serve 'er right," growled the man, pushing her away.

"Please—please—" the little girl sobbed again, "Mother's dying."

"Let 'er die." And with a muttered oath he turned his back on her and ordered another nut sundae.

"But, Daddy, there are two men breaking into the cellar."

With a horrible shriek the man leaped across the room and out.—*Washington Cougar's Paw*.

Q. E. D.

The tabbies at the weekly sewing circle are reported to be concerned with the future of our young women. They are at a loss to tell where the gin-lapping, cigarette-smoking damsel will wind up.

It's an easy problem.

The flapper will marry the bean. The bean will quit beaning, and the flapper will quit flapping. They will raise a family, pay their bills, go to lectures like this, and the mother will come home lamenting the decadence of morality, harking back to the good old days of modesty when she was a girl. That's what they all always do do.—*Rice Inst. Owl*.

A Waste of Breath.

Panel Doctor (to gloomy patient): You must drive away this depression. Practice a spirit of cheerfulness. Sing at your work, as it were.

Patient: Sing at my work? Why, it can't be done, sir. I'm a glass blower.—*Punch*.

And who was the deceased motorist that held the Non-Stop, Look and Listen record?—*Brooklyn Eagle*.

"What's your name, my little man?"

"I don't know for certain, sir. My mother belongs to the Lucy Stone League."

"Why did you let that book agent into my office?"

"Well, sir, as you saw, he had his stuff in a golf bag."—*Detroit Free Press*.

Both in the Swim.

"My daughter sprang from a line of peers," said a proud father.

"Well," said her suitor, "I once jumped off a dock myself."—*Everybody's Magazine*.

"Biting" Retort.

"I like cheerfulness. I admire anyone who sings at his work."

"How you must love a mosquito."—*Boston Transcript*.

Another Sherlock.

Detective: "You can't remember what night this happened?"

Lady: "No, I was so excited at the time; I only remember I was in my bath."

Detective: "Say no more, lady—I have it—it was Saturday night."—*Life*.

Beyond the Limit.

A bather got out beyond her depth, and her screams soon brought to the rescue the boatman whose business it was to save anyone in difficulties. A few strokes carried him to the spot and he reached out a muscular arm to grip the poor girl, who was just about to sink. At this moment her frantic struggles dislodged her bathing cap, which soon floated away, carrying with it, what was more precious, her wig.

"Oh, save my hair," she cried. "Save my hair!"

"Madam," replied the gallant rescuer, hauling her into the boat, "I am only a life-saver, not a hair restorer."—*Princeton Tiger*.

County Societies

BRONX COUNTY MEDICAL SOCIETY.

REGULAR MEETING, MAY 17, 1923.

The meeting was called to order at Bronx Castle Hall, at 8.50 P. M. The President, Dr. Leiner, in the Chair.

Dr. John F. Fitzgerald, representing Hon. Bird S. Coler, Commissioner of Public Welfare, presented a history of the New Bronx Hospital, describing same in detail. Mr. Charles B. Meyers described the hospital from the architectural standpoint. The matter was further discussed by Dr. Frederick L. Flynn and Dr. J. Lewis Amster.

Dr. Amster moved that a vote of thanks be given to Commissioner Coler for bringing about this hospital as far as it has gone and also to thank Dr. Fitzgerald and Mr. Meyers for telling us exactly what the status of the hospital situation is up to the present time. This motion was carried.

Dr. Lukin moved that a vote of thanks be extended to Dr. Amster for his work in connection with the hospital. This motion was carried.

"Psycho-Pathology and Organic Disease," Smith Ely Jelliffe, M.D.

Moved, seconded and carried that a vote of thanks be extended to Dr. Jelliffe.

The minutes of the last regular meeting of the Society were read and approved. The minutes of the last regular meeting of the Comitia Minora were read for the information of the Society.

The following were elected to membership: Harry D. Pasachoff, Sidney Reich, Philip Rifkin, Martin B. Scheuer.

The Comitia Minora's recommendation to the Society of the publication of the Bronx Medical Bulletin was discussed by Drs. Benjamin, Leiner, Lukin and Jacobs. Dr. Lukin moved that such a bulletin be printed. This motion was carried.

Dr. Podvin, for the Committee on Public Health, reported progress and submitted a letter from the Bronx Pediatric Society giving list of members who have volunteered to Schick Test the children of physicians residing in the Bronx.

Dr. Friedman reported for the Committee on Medical Economics.

The following Resolutions were presented:

"Whereas, The Bronx County Medical Society having sustained a severe loss in the death of its honored associate, Jacob Travers Krause, M.D.

"Resolved, That the Bronx County Medical Society record the sense of its loss in the death of Dr. Krause and that a minute thereof be placed on the records of the Society; and be it

"Further Resolved, That a copy of these Resolutions be transmitted to the family of our departed member."

Moved, seconded and carried that they be adopted.

"Whereas, The Bronx County Medical Society having sustained a severe loss in the death of its honored associate, Morris N. Karash, M.D.

"Resolved, That the Bronx County Medical Society record the sense of its loss in the death of Dr. Karash and that a minute thereof be placed on the records of the Society; and be it

"Further Resolved, That a copy of these Resolutions be transmitted to the family of our departed member."

Moved, seconded and carried that they be adopted.

Moved and seconded that the Comitia Minora's recommendation that the Society donate \$100.00 to the New York Academy of Medicine to aid its "Drive" for a new building be approved. This motion was carried.

COLUMBIA COUNTY MEDICAL SOCIETY.

SEMI-ANNUAL MEETING, COPAKE FALLS,

TUESDAY, MAY 8, 1923.

The meeting was called to order at the Tacoma Inn, Copake Falls.

A communication from Homer Folks, Secretary of the State Charities Aid Society, in answer to resolutions passed by the Society at a special meeting relative to an article given the press by the State Charities Aid Society commending the decision of Justice Morchauser in the Galster-Tanner case was read by the Secretary. The unanimous opinion of the members present was that the author of the letter did not grasp the contention of the Society and a committee was appointed to continue the correspondence with the object of obtaining a more satisfactory conclusion.

The President of the District Branch and the County Delegate to the State Convention were instructed to bring the Galster-Tanner case to the attention of the State Society.

A committee of three—Drs. Garnsey, Waterbury and Noerling—were appointed to draft resolutions upon the death of Dr. J. B. Southworth.

After an excellent luncheon, at which there were twenty-six members and guests present, the following unusually interesting scientific program was presented:

"Deflections of the Nasal Septum," Frank B. Wheeler, M.D., Hudson.

"Radium Therapy," Thomas Ordway, M.D., Albany.

Address, Arthur J. Bedell, M.D., Albany.

MEDICAL SOCIETY OF THE COUNTY OF SARATOGA

SEMI-ANNUAL MEETING, BALLSTON SPA

WEDNESDAY, MAY 16, 1923

The meeting was called to order at the Haynes House.

At one o'clock, the members met at the Capitol Theatre to see moving pictures of the neurological conditions, as seen at the Blakeley Hospital, Philadelphia. These were shown by Dr. Percy De Long, Philadelphia.

Following the luncheon, the regular order of business was taken up.

A very interesting and instructive paper on "Some Phases of the Practice of Medicine in New York State as Brought Out by a Study of the Medical Service in Rural Communities," was given by Dr. E. MacD. Stanton, Schenectady.

QUEENS COUNTY MEDICAL SOCIETY.

THE JOINT MEETING WITH THE MEDICAL ASSOCIATION OF THE GREATER CITY OF NEW YORK.

JUNE 5, 1923.

The meeting was held at the Pomonok Golf Club, in Queens, and the program included golf and tennis in the afternoon and a dinner in the evening.

Twenty-six men played golf and two played tennis. Eighty-one were at the dinner. The golf tournament was won by Dr. L. M. Kelly, of Kew Gardens, and Dr. A. S. Wilson, of New York, who tied for first place.

The two presidents, Dr. Charles B. Story, of Queens, and Dr. N. B. Van Etten, of New York, presided, and after dinner Brigadier-General H. A. Drumm, U. S. A., who was Pershing's Chief of Staff during the War in France, delivered a most interesting address on "What the Americans Did in France." This address was a most remarkable revelation of the inside story of the American operations of the World War and held the rapt attention of the audience until a late hour. A memorable night.

NEW YORK STATE JOURNAL *of* MEDICINE

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NEW YORK, N. Y.

JULY, 1923

RECENT PROGRESS IN THE COMMUNICABLE DISEASES OF CHILDHOOD.

By CHARLES HERRMAN, M.D.

4. DIPHTHERIA.

CASES of Vincent's angina are still occasionally mistaken for diphtheria, and the physician is surprised when the report on the culture is negative. In doubtful cases a smear gently fixed by heat should be sent with the culture tube. Vincent's angina is best treated with salvarsan; diphtheria antitoxin has no effect.

There is a form of influenzal croup which may closely resemble true croup, so that patients are occasionally referred to a hospital for contagious diseases. In all doubtful cases antitoxin should be given. However if the case occurs during an epidemic of influenza, if other cases have occurred in the same family, if on careful examination no membrane is seen, and other catarrhal symptoms are present, the case is probably one of influenzal croup. The examination of cultures, and the course will usually clear up the diagnosis. Occasionally in influenza a very thin bluish gray film is seen on the tonsils, or follicular spots, so that this may add to the difficulties of diagnosis. The practical point is that cases of influenzal croup do not do well when intubated. Steam inhalations together with sedatives and antispasmodics are indicated, and will usually tide the patient over the period of stenosis.

In cases of laryngeal stenosis the membrane has been successfully removed by suction. It is especially indicated in those cases in which the membrane is pushed before the tube, or in which the tube does not reach the membrane. In a few cases even when the membrane is removed by suction, the associated edema may necessitate intubation, but in many intubation becomes unnecessary, so that the danger of decubitus, and the difficulties of extubation are eliminated. The insertion of the suction tube is guided by direct laryngoscopy.

In infants the diphtheritic infection is not in-

frequently in the nose, so that whenever there is a persistent discharge, cultures should be made. Such unrecognized cases are often the starting point for the spread of the disease.

In cases which are clinically diphtheria, too much reliance should not be placed on the negative report of the culture. Much depends on the way in which the specimen is obtained. On the other hand, cases showing organisms morphologically resembling the Klebs-Loeffler bacillus, may be harmless, because the organisms are not virulent. Children with hypertrophied tonsils and adenoid vegetations are more likely to be persistent carriers, so that when these structures are enlarged or infected removal is indicated. The clearing up of persistent carriers is difficult. A large number of methods have been suggested, local application of germicides, antitoxin, bacterial cultures, radiotherapy, all without much success. Recently favorable results have been reported with a new germicide, Diphthosan. It is used in solution, 1-5,000; 5 cc. are instilled into the nose every 2 hours. As it is not irritating or poisonous, no harm is done if a small amount is swallowed. It is claimed that the organisms disappear in from 8 to 10 days.

In the early progressive cases of post-diphtheria paralysis, especially if they have a positive Schick reaction, antitoxin should be given. As some patients have not the ability to develop sufficient antitoxin, there may still be a certain amount of free toxin in the circulating blood. It is certainly worthy of trial.

Schick estimates that the average case of diphtheria requires 500 units of antitoxin for each kilogram of body weight. However, the amount must vary with the severity of the case, and the time at which it is given. Patients also vary in the rapidity and extent to which they are able to develop antitoxin. One fair sized injection administered early gives the best results. In severe and late cases, intravenous injection is indicated.

As an indicator of the presence or absence of immunity, the Schick tests is of undoubted value,

provided the technique is correct, and the toxin used is of the proper strength. In the immunization with the toxin-antitoxin mixture Park has found that the results are just as good when a small amount of less neutralized toxin is employed, and this is now used by the New York City Department of Health. It has the great advantage in children, that disagreeable reactions are rare. The morbidity and mortality from diphtheria has not been reduced during the last few years. This is largely due to the fact that large numbers of unrecognized carriers spread the disease to susceptibles, chiefly young children. A real reduction and control will only be possible when all or nearly all infants and young children are immunized. Thus far over 100,000 school children in New York City with a positive Schick test have been immunized, but it still remains to protect the most susceptible group, namely, the infants and children under five years of age. The results in school children are most gratifying. While in 90,000 school children who were tested and when necessary immunized, only 12 cases of diphtheria occurred; in 90,000 who were not tested and not immunized 54 cases developed. The largest incidence occurred in those who originally gave a positive Schick reaction, who were then injected, but who on retesting after an interval of from 3 to 6 months, still gave a positive reaction; in other words, those who were unable to develop antitoxin in sufficient amount. Such children should receive a second series of injections. The present method of immunizing is to give 3 injections, each 1.25 cc., of the toxin-antitoxin mixture, at intervals of 2 weeks. After the public has become familiar with the advantages of immunization against diphtheria, it will not be difficult to obtain the parents consent. It will be advisable to require a certificate of immunization, as it is now required to present a certificate of vaccination, before entrance into public school. At present there is much more danger of contracting diphtheria than smallpox. Private physicians have the best opportunity to carry out this work of immunization, as they have the infant under their care from birth. At the time the baby is vaccinated, the importance of immunization against diphtheria could be emphasized. In infants the Schick test is unnecessary, and the injection of the toxin-antitoxin mixture is simple.

THE LEUCOCYTOSIS OF INTERNAL HÆMORRHAGE.*†

By ARTHUR M. WRIGHT, M.D.,
and
EDWARD M. LIVINGSTON, M.D.

THIS article presents clinical and experimental data concerning the diagnostic value of the leucocytosis produced by recent hæmorrhages within serous cavities. Our interest in this subject was aroused by the frequent observations of cases in which marked leucocytosis led to the diagnosis of some septic condition, in which, however, an autopsy examination excluded the presence of sepsis. Cases of fracture of the base of the skull, of pachymeningitis interna hæmorrhagica and of severe war wounds of the chest and abdomen illustrate these observations. In a review of all cases of hæmorrhagic pachymeningitis coming to autopsy at Bellevue Hospital it was found that in uncomplicated cases of this disease in which the patients died from a large subdural clot, superimposed upon the typical thickened membrane, a high leucocyte count was a constant occurrence; yet in none of these patients was a correct diagnosis made before death and in a high percentage of the series a diagnosis was made of a septic condition such as meningitis, brain abscess, malignant endocarditis with embolism, etc., the blood count probably convincing the diagnostician of the presence of sepsis. Similarly, in cases of fracture of the base of the skull presenting high leucocytosis the diagnosis of meningeal inflammation or some other infectious process was made. During the World War we have seen several cases diagnosed as empyema in which operation or autopsy examination revealed blood rather than pus within the thorax. Often only sterile blood was found in cases considered to be peritonitis. From these clinical errors and the subsequent necropsy findings, it was apparent that marked leucocytic reactions were frequently due to non-septic causes.

The problem concerning the exciting factor or factors in this non-septic type of leucocytosis was studied through clinical observations checked by operation or autopsy and subsequently was carried to the experimental laboratory. The clinical charts cover the following three diseases: Fracture of the base of the skull, pachymeningitis interna hæmorrhagica and ruptured ectopic gestation, and are con-

* Awarded the Merritt H. Cash Prize by the Medical Society of the State of New York at the Annual Meeting, held in New York City, May 21, 1923.

† From the Third Surgical Division of Bellevue Hospital and the Department of Experimental Surgery, New York University and Bellevue Hospital Medical College.

THE LEUCOCYTOSIS OF INTRADURAL HÆMORRHAGE

1. Fracture of skull Clinical Chart #1

Table with 2 columns: Case details (No., Age, Sex, Adm., Dis., Findings, Leucocyte count) and Case details (No., Age, Sex, Adm., Dis., Findings, Leucocyte count). Includes various clinical cases and a summary at the bottom.

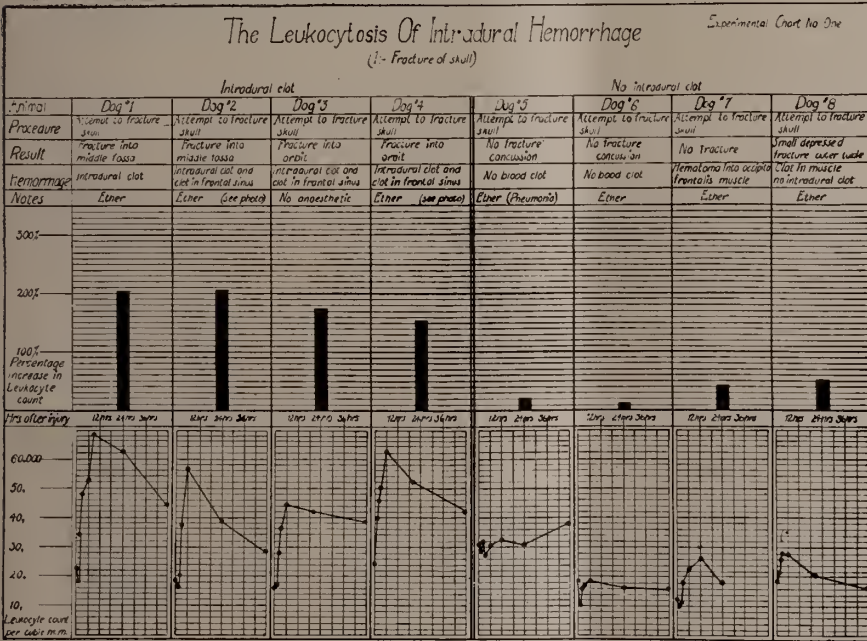
A. The Leucocytosis of Intradural Hæmorrhage.

- (1) Fracture of Skull.
(2) Pachymeningitis interna hæmorrhagica.

Clinical Chart Number One is a review of the history charts of all patients dying, upon the Third Surgical Division in the period between April, 1920, and January 1, 1923, as a result of intracranial injuries. There are twenty-nine (29) cases presented, seventeen (17) of which had blood examinations. The average leucocytosis was 19,400 and the average polynuclear percentage was 84.

Because of the intimate attachment of the dural membrane at the base of the skull a fracture through this area always tears the dura mater and always results in some degree of intradural hæmorrhage, as indicated by the autopsy findings on the chart. In these cases no other cause was found for the leucocytosis than the laceration of the structures and the subsequent intradural extravasation of blood. (See Clinical Chart Number One.)

Experimental Chart Number One is largely self-explanatory. Attempts were made to se-



constructed from the records of Bellevue Hospital, particularly the Third Surgical Division (Service of Dr. George David Stewart), and from the gynæcological service of Dr. Holden. All cases recorded were either operated upon or had autopsy examinations. The experimental data represents a study of leucocytosis due to hæmorrhages within serous cavities, the dura mater, peritoneum, pleural and joint cavities being dealt with in the experiments. This work was done in the experimental surgical laboratories of New York University and Bellevue Hospital Medical College.

ure fractures of the base of the skull in laboratory animals. Dogs were used and subjected to severe cranial trauma while under the influence of ether narcosis. Frequent blood counts were made, both before and after the injury, and subsequently all the animals were subjected to autopsy examinations. Control animals were examined to test the effects of ether. Blood counts were made of blood from the ear or the femoral vessels.

Clinical Chart Number Two records cases of pachymeningitis interna hæmorrhagica which were autopsied in Bellevue Hospital between the years of 1906 and 1920. This review was

THE LEUCOCYTOISIS OF INTRADURAL HÆMORRHAGE
LEUCOCYTE COUNTS IN CASES OF PACHYMENINGITIS
INTERNA HÆMORRHAGICA

Clinical Chart #2

Note:- All of these cases were autopsied (2 operated upon).

Bellevue Hospital autopsy records showed the cause of death in each case to be a large subdural blood clot superimposed upon a typical thickened membrane of this disease.

Twenty such cases showed the following upon their clinical charts:

Case:- 1. No count recorded.
2. No count recorded.
3. C.M. 48. 1M. Apr. 14 1906. #750. WBC. 26,000 P.-91%
4. A.F. 40. 3M. Jan. 26, 1916. #4821. WBC. 22,000 P.-88%
5. No count recorded.
6. J.G. 42. AB. Oct. 3 1919. #6354. WBC. 13,500 P.-88%
7. L.B. 43. AB. Oct. 20 1910. #2620. WBC. 20,000 P.-90%
8. No count recorded.
9. J.M. 49. A2. Dec. 21 1909. #2376. WBC. 14,400 P.-92%
10. No count recorded.
11. E.R. 31. 1M. May 3 1916. #4965. WBC. 23,400 P.-84%
12. No count recorded.
13. No count recorded.
14. P.C. 48. Wd. 9. Apr. 6 1906. # 734. WBC. 14,000 P.-90%
15. No count recorded.
16. No count recorded.
17. J.K. 68. 28. June 11 1920. St. V. WBC. 19,400 P.-80%
18. T.C. 48. ? ? ? 1908. ? WBC. 18,500 P.-92%
19. No count recorded.
20. E.J. 79. Wd. 27. Mar. 29 1907. #1253. WBC. 20,200 P.-91%

Review:- Ten cases with no count recorded:- (50% of group).

100% of cases recorded showed high leucocyte count.

100% of cases recorded showed a high polymorphonuclear percentage

The lowest of the series was:- 13,500 with 88% polymorphs.

The highest of the series was:- 26,000 with 91% polymorphs.

The average count was:- 19,200 leucocytes - with 90% polymorphs.

made in an endeavor to secure a more definite diagnostic picture of this disease (unpublished report). Six thousand four hundred (6400) autopsies were examined, including three thousand two hundred and ninety-nine (3299) brain examinations. Pachymeningitis interna hæmorrhagica was encountered in two hundred and twenty-three (223) of these brain examinations and large subdural clots found in addition to the characteristic membrane in thirty-one (31) of this number—the disease being recorded as the cause of death in the latter number. Complete clinical charts were found in the record room for seventeen (17) of these thirty-one (31) "primary" cases. The chart here presented deals with these seventeen (17) cases to which are added two (2) cases operated upon by Dr. Hartwell of the Second Surgical Division of Bellevue Hospital, and one coming to autopsy at St. Vincent's Hospital. Of these twenty (20) cases, ten (10) had leucocyte counts recorded, the average leucocytosis being 19,200 with 90 per cent. polymorphonuclear neutrophils. In none of these cases was any septic inflammatory condition found.

Experimental Chart Number Two records data concerning the attempts to simulate pachymeningitis by the intradural injection of blood. Small trephine openings were made in the skulls of dogs under complete ether narcosis and variable amounts of blood taken from the external jugular vein of the same animal

injected beneath the dura. Control animals were used to test the effect of ether and the procedure of trephining. A second series of injects were made, placing the blood upon the outer side of the dura mater. The charts have been made self-explanatory.

Clinical Conclusions.—1. All fractures of the base of the skull showed, at autopsy, subdural blood.

2. All fractures of the base of the skull showed high leucocytosis.

3. All cases of pachymeningitis interna hæmorrhagica with recent intradural blood clots showed high leucocytosis.

Experimental Conclusions.—1. When fracture of the base of the skull followed cranial trauma, subdural bleeding was present and all such animals had high leucocytosis.

2. When the serous coat of the dura was not involved no high leucocytosis followed the trauma.

3. Blood injected through a needle prick in the dura uniformly produced high leucocytosis; blood injected upon the outside of the dura produced no high leucocytosis.

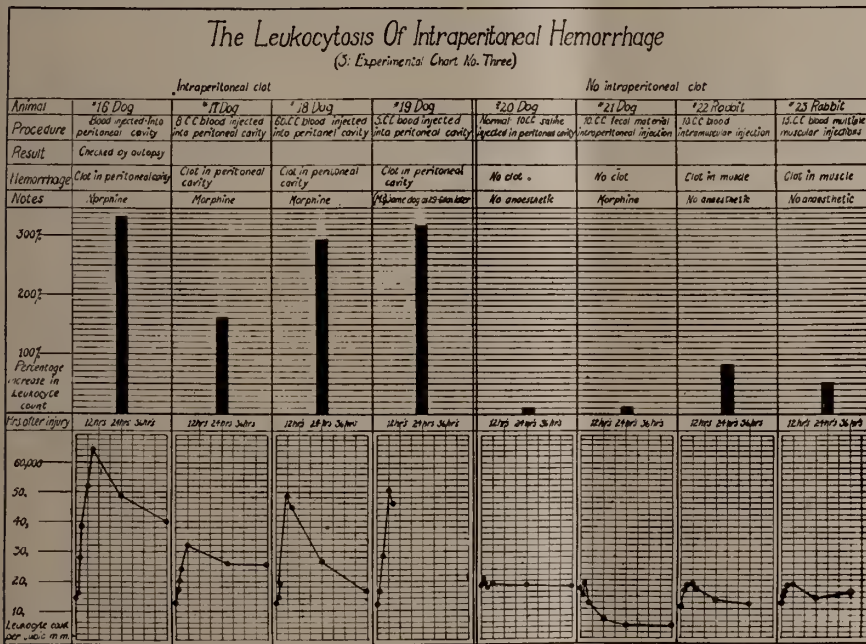
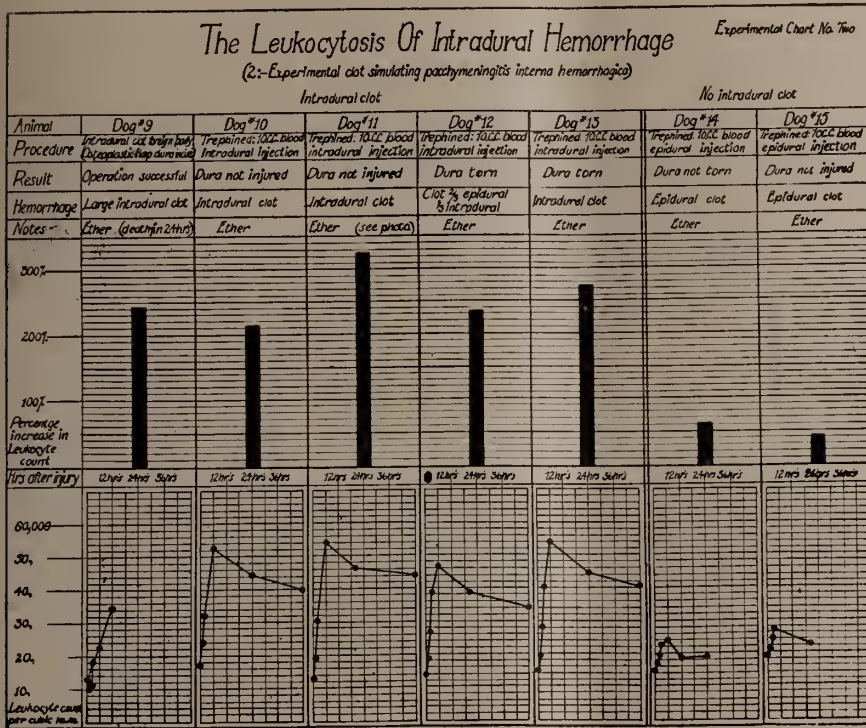
4. In the leucocytic reactions following the intradural injection of blood the count always exceeded 100 per cent increase and followed a definite curve reaching a maximum between the sixth and the tenth hour and returning to normal by the fourth day.

B. The Leucocytosis of Intraperitoneal Hæmorrhage.

Clinical Chart Number Three consists of a graph of one hundred and two (102) leucocyte counts from cases of ruptured ectopic gestation. These counts are plotted with reference to the time subsequent to the typical severe abdominal pain of this disease. The average of all cases counted during any period of twenty-four hours is indicated and the total average shown as a continuous heavy line running through the chart. All cases plotted came to operation and in every case intraperitoneal blood or blood clots were found. (See Clinical Chart Number Three).

Experimental Chart Number Three shows the effect of injections of whole blood into the peritoneal cavity; of similar injections into the abdominal wall; of the injection of saline into the peritoneal cavity; of the introduction of faecal material into the peritoneal cavity, etc. (See Chart Number Four for further observations upon the effect of injections of blood made outside of the peritoneal cavity, and the effect of transplanted peritoneum in contact with blood.)

Clinical Conclusions.—1. All cases of ruptured ectopic gestation with blood counts taken within twenty-four hours of a typical abdominal attack showed a high leucocyte



count—the average count in the first twenty-four hours being 20,200 and the average for cases counted during the first twelve hours being 26,400.

2. The average count the result reached normal by the fourth day.

Experimental Conclusions.—1. The intraperitoneal injections of whole blood in variable amounts always caused an increased leukocytosis of 150 per cent to 320 per cent.

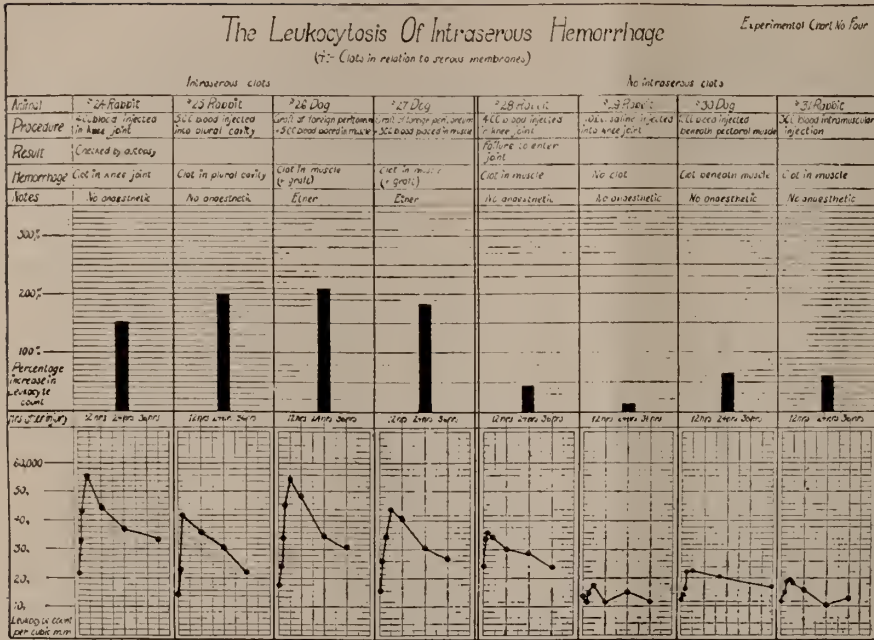
2. Similar injections not reaching the peritoneal cavity showed no analogous increase, the leukocytosis, if present, never exceeding an 80 per cent increase. (See also Chart No. Four.)

3. The character of the leukocytic curve was similar to that described under intradural clots as to height, to time of reaching its maximum level and to duration.

C. Leucocytosis following miscellaneous intraserosous injections.

The similarity in the leukocytic reaction following injections into the peritoneal cavity and beneath the dura mater led to the investigation of the reaction following injections of blood into the pleural cavity and joint cavities. The reactions, in these experiments, were similar to those already described, and similar deductions were made. High leukocyte counts even followed the association within muscle tissue of either foreign or homogeneous peritoneal grafts and blood. (See Experimental Chart No. Four.)

It is the object of this article to determine the frequency and diagnostic value of leukocytosis after internal hemorrhage rather than to attempt an explanation of the phenomenon. However, in the course of the investigations, many problems presented themselves for conjecture and further study. Certain impressions followed—though not fortified by a sufficient number of control experiments to constitute well-established conclusions. Among these impressions were the following: (a) That the tissue involved was the determining factor in the character of the leukocytic reaction rather than the amount of the hemorrhage. (b) That although the duration of the resulting curve



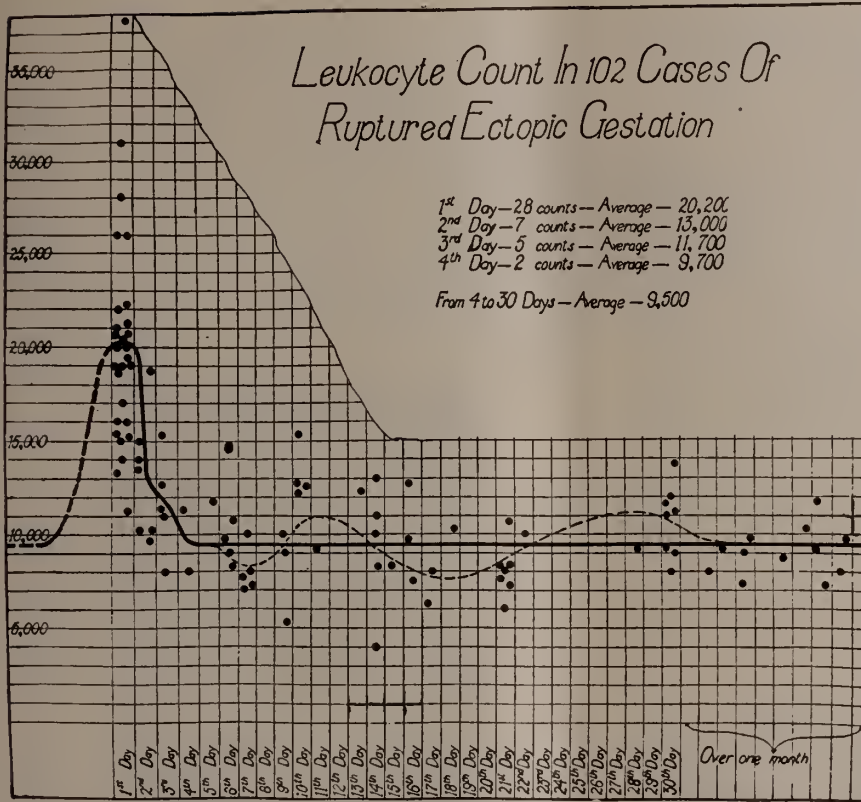
seemed fixed, new hæmorrhages caused new curves to be superimposed upon the initial reaction which were apparently identical with the initial reaction. (c) The character of the reaction was similar whether the amount injected was 3 c.c., or 100 c.c. (d) The factor determining the leucocytic reaction is intimately associated with the initial process of clotting and the presence or absence of the blood after the first few minutes did not seem to affect the reaction. For example—one c.c. of blood was brought in contact with omentum where it clotted and was removed after three minutes. The same high leucocytic reaction followed.

Certain additional and associated problems are being investigated such as: (a) The origin of the enormous number of leucocytes which so quickly appear in the circulating blood; (b) the disappearance of these cells subsequent to the maximum of the leucocytic curve; (c) the effect of injections of separate constituents of the whole blood within and without the serous cavities—serum, red cells, etc.; (d) the effect of acidity at the point of clotting upon the reaction; (e) the differential blood count and the changes in the relative percentage of the various white cells during the reaction. Considerable interesting data has accumulated relative to each of these problems, but cannot well be included in the present paper.

Literature upon the subject of leucocytosis following internal hæmorrhage is scant. De-Quervain¹ writing upon "Errors in the Diagnosis of Acute Appendicitis" noted that leucocyte counts as high as 26,000 might follow rupture of an ectopic gestation without infection. Hoessli² in 1914 wrote concerning "Leucocytosis with Intraperitoneal Bleeding" and

found no reference to the subject prior to that time. This article presents both clinical and experimental data and still constitutes the outstanding contribution to the subject. The clinical portion of the paper consists in the presentation of three cases from the surgical clinics at Basel with blood counts before operation of 15,000, 19,000 and 30,000, respectively, and with no infectious process found at operation, and furthermore with no other apparent cause for the leucocytosis than the presence of intraperitoneal blood. In an

attempt to explain these findings, experiments were conducted upon rabbits. Amounts to blood computed by animal weight to equal a hæmorrhage of 400 to 800 gm. in an adult were injected into the peritoneal cavity of the animals. Blood taken from one animal and injected into the peritoneal cavity of another gave a high leucocyte count which was maximal in six hours and returned to normal the next day. When blood was taken from the same animal (carotid artery) and reinjected into the peritoneal cavity, a high leucocytosis followed and was maximal in from six to nine hours and reached normal by the fourth day. Simply withdrawing this amount of blood from an animal was followed by a lowered white count during the first twelve hours. Levinson³ reported one clinical case—a young female with a leucocyte count of 22,000 and symptoms pointing to either a ruptured ectopic gestation or acute appendicitis. The latter was the pre-operative diagnosis, made largely upon the basis of the high blood count. Operation revealed a ruptured tubal pregnancy. This author quotes Hoessli, points to the lack of any previous literature and concludes that the leucocyte count cannot be relied upon in a differential diagnosis between abdominal hæmorrhage and sepsis. Dold⁴ in studying the leucocytosis in the general circulation following intraperitoneal injections of whole blood and also following injections into the knee joint. His work is entirely experimental. Govaerts⁵ in studying "The Blood Count After War Wounds" made observations concerning the reaction of both red and white cells after severe



injuries, and stated that in any war wound followed in six hours by a leucocytosis of 30,000 or above, a serious hæmorrhage had occurred, and the outlook was grave; he also stated that where internal hæmorrhage was suspected a high leucocyte count confirmed the necessity for operation and cited one case with a leucocyte count of 31,000 with a rupture of the spleen. Meleney⁶ in studying postoperative leucocytosis in nonseptic surgical conditions took periodic counts upon fifty-one (51) cases, chosen at random, all being noninfected cases. In each instance the white count rose within six hours following operation and gradually fell to normal by the fourth day. There is considerable literature upon "posthæmorrhagic leucocytosis"; this signifying the slight rise above normal after the loss of a considerable quantity of blood. This total rise is slight and does not begin prior to the second day, there being a fall during the first twenty-four hours as pointed out by Hoessli. This so-called "leucocytosis of hæmorrhage" shown by Dawson⁷ to be maximal only after several days and slight in amount, is not to be confused with the "leucocytosis of internal hæmorrhage" here referred to. The literature consists, then, of few articles, largely experimental, confined to the past decade. The results have been indefinite as regards their diagnostic significance, and no extensive clinical application has resulted.

if possible, and subsequent counts daily during the next three days.

5. Following a cranial injury such an immediate high leucocytosis constitutes presumptive evidence of intradural bleeding and of fracture of the base of the skull; the absence of such an immediate high count excludes fracture of the base of the skull.

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The general conclusions from the present study are:

1. A hæmorrhage within a serous cavity always results in a high leucocytosis.

2. This leucocytic reaction presents a characteristic curve reaching a height of 150 per cent to 300 per cent increase within the first ten hours and returning to normal by the fourth day.

3. In any disease with a recent intraserosus blood clot an early leucocytosis of 150 per cent to 300 per cent increase is present and constitutes an important diagnostic sign.

4. In the interpretation of this sign the leucocytic curve must be constantly in mind—two counts being made during the first six hours,

THE PHYSIOLOGICAL EFFECTS OF RADIANT ENERGY, ESPECIALLY UPON THE HUMAN EYE.*

By CHARLES SHEARD, M.A., Ph.D.,
SOUTHBRIDGE, MASS.

IN the discussion which is to follow we shall be particularly interested in the general effects of radiant energy upon micro-organisms, the skin, blood, metabolism and the beneficial effects of sunlight in pathological conditions. By reason of the community of interests of the illuminating engineer, the physiologist, the physician, and those who take care of the errors and defects of human eyes, we shall be especially interested in the physiological and pathological effects of light upon the eye.

The general subject must be approached from several standpoints. We must consider the effects of *specific regions* of radiant energy, on the one hand, and the reactions due to *quantity of energy* on the other hand; for energy of low quantal value may not produce the same effects as energy in larger quantities.

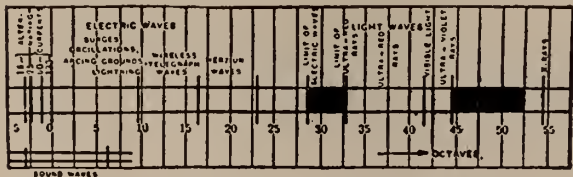


FIG. 1—The spectrum of radiation (Steinmetz).

By way of introduction, then, let it be said that the first systematic investigations as to the biological and therapeutic effects of light were made in or about 1896 by Dr. Finsen of the Light Institute of Copenhagen. Much work has been done since that time, especially in the treatment of lupus or tubercular skin disease. Radiant energy is apparently being used at present successfully in the treatment of tuberculosis, rickets, malaria and so forth, but the real action of light on the living cell is still unknown. For there is no action of light or radiant energy upon the human body similar to the effect of light on the chlorophyll system of plant life or, again, similar to the bleaching action of sunlight upon clothes. This much, however, can be said: The lack of sunlight does not produce anemia when a satisfactory nutritional condition exists. While the action of sunlight, *per se*, is indefinite and uncertain, we have many experiments to show that the ultraviolet (from 3500 t.m. to 1000 t.m.), near ultraviolet (4000 to 3500 t.m.) and visible radiations show physiological and pathological effects similar to the X-ray and radium.

*Read at the Annual Meeting of the Medical Society of the State of New York at New York City, May 23, 1923.

EFFECTS OF RADIANT ENERGY ON MICRO-ORGANISMS.

In 1877 Downes and Blunt showed that sunlight retards the growth of bacteria and demonstrated that the effect was not due to heat. In 1893 Ward proved that anthrax bacilli were affected by the violet and ultraviolet. In 1905 Hertel showed conclusively the lethal effects of the ultraviolet on bacteria and paramœcia. The shorter the wave-length the greater the lethal effect. Wave-length 2320 t.m. is apparently four times as powerful in its killing action as 2800 t.m.

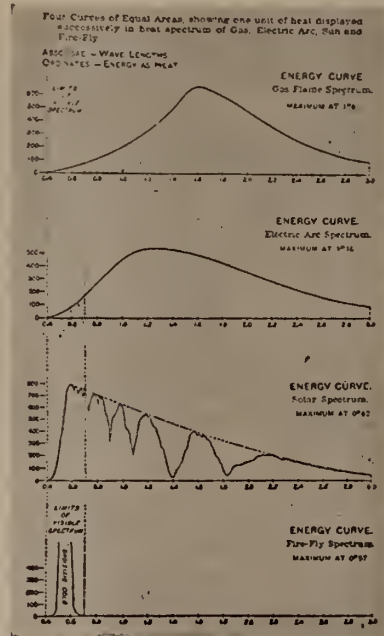


FIG. 2—Distribution of energy in spectra of gas-flame, electric arc, sun and firefly.

Browning and Russ in 1917 inoculated a gelatine plate with micro-organisms and showed that wave-length 2960 t.m. kills at 37°C. Thiele and Wolf showed that wave-lengths greater than 3000 t.m. were harmless to bacteria at 15-20°C but were fatal at 30°-40°C.

Henri discovered that the abiotic power of light is proportional to its extinction coefficient. With small organisms the entire protoplasm is affected and the action follows the laws of photochemical reactions. With large organisms, however, the effect is a surface one, due to the small penetrative power of the ultraviolet radiations. We should note in passing that ultraviolet of 4000-3000 t.m. is natural radiation and is to be definitely separated from radiation of 3000-2000 t.m. which is not found in nature, but which is pronounced in its action on living cell tissue.

Bovie, in 1918, found that paramœcia exposed to a sublethal dose of ultraviolet are so sensitized to heat that they cannot stand a temperature which is the optimum for controls. Death from

the ultraviolet exposures is evidently due to heat coagulation. With sublethal doses this investigator also found that: (1) There is no inhibition of cell division with 1/25 the exposure necessary for cytotoxicity. (2) The duration of the inhibition increases with exposure. (3) The inhibition is followed by an acceleration of cell division or mitosis. Henri also found that sublethal doses of ultraviolet may change anthrax bacilli to cocci. The modified forms, unlike the originals, can obtain their nitrogen from ammonium salts. The power of the ultraviolet destroys the power of the bacilli to secrete proteolytic enzymes, while leaving uninjured the amylolytic enzyme production.

THE EFFECTS ON THE SKIN.

Light of wave-length less than 3000 t.m. is absorbed by the epidermis to a depth of one-tenth millimeter. The blood serum absorbs everything below this same wave-length. The percentage of light of wave-length 4360 t.m. absorbed by the skin 0.1 mm. thick, according to Hasselbalch, is about 60, while for wave-length 2970 t.m. it is only 2 per cent.

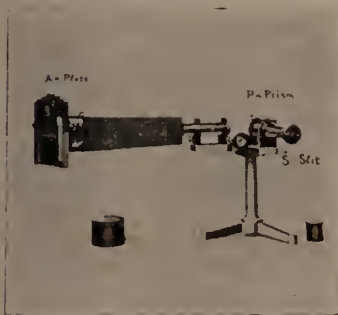


FIG. 3.—A form of modern spectrometer for investigating the ultraviolet.

Sunburn is due to the absorption of ultraviolet by the epidermis, with the end result a deposit of melanin (pigment) in the basal cells of the epidermis. Rollier believes that the beneficial action of sunlight is due to the pigmentation produced. It is also probable

that the chemical change taking place in the epidermal cells, resulting in pigmentation, acts as a stimulus to metabolism. The most effective wave-lengths lie between 3300 and 2900 t.m. The very short wave-lengths are absorbed before they reach the basal cells of the epidermis. The epidermis, however, affords no protection against wave-lengths shorter than those formed in sunlight.

EFFECTS ON PLAIN MUSCLE AND THE BLOOD.

Ultraviolet radiations act as a stimulus on the stomach and intestines of frogs. The longer wave-lengths also do, provided the organs are sensitized with a dye, such as eosin.

When we discuss the effect of light on the blood, we have to consider the actions upon the red and white elements respectively.

Erythrocytes.—The action is to decrease the red count and percentage of haemoglobin in the

dark and to increase it in the light, after long exposures.

Lymphocytes.—Four points are to be noted. (1) Ultraviolet stimulates lymphocytosis in men and animals. (2) The action is due to wave-lengths shorter than 3300 t.m. (3) The production of lymphocytosis and formation of pigment by ultraviolet is important in heliotherapy. The maximum point in lymphocytosis is reached in about five days. (4) The lymphocytosis is probably due to an increase in rate of production.

The absorption of ultraviolet to a depth of only 0.1 mm. produces definite internal results or changes. Experiments on mice show hyperaemia of the spleen, lungs, and liver. These changes are probably due to a photochemical product formed at the surface and conveyed in some manner to the internal organisms.

EFFECT ON METABOLISM.

Light causes a change in metabolism as is evidenced by changes in the amounts of carbon dioxide, rate and depth of respiration and so on. The ultraviolet does not appear to produce very marked effects and this is probably due to the small penetrating power of the very short ultraviolet waves. In so far as the output of carbon dioxide is concerned, the visible and ultraviolet radiations longer than 3300 t.m. are more potent.

In rickets light is concerned with the phosphorous and calcium metabolism.

PHOTODYNAMIC SENSITIZATION.

Although ultraviolet radiations, especially those below 3000 t.m., produce many reactions in living cells, visual radiation is apparently inactive except

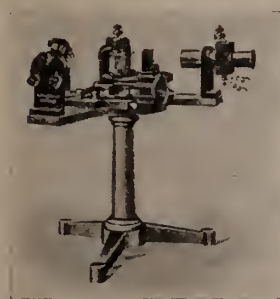


FIG. 4.—The Hilger form of infra-red spectrometer.

in processes of vision, heat and some metabolism. But with sensitizers such as fluorescein and its derivatives, we can produce reactions with visible light. Hematoporphyrin, produced by removing iron from hematin, is an illustration. For instance, with white mice, 0.01 gram is harmless in the dark but 0.002 gram is a lethal dose in

the light. Buckwheat poisoning amongst animals and skin lesions in pellagra indicate light-sensitive conditions in man.

HELIO THERAPY.

1. *Skin Diseases.*—The work of Finsen in tuberculous skin diseases (lupus) is most marked along these lines. The ultraviolet destroys dis-

eased tissues and promotes a growth of healthy tissues. The effects are similar to treatment with X-rays but are much safer, since no bad after-effects are noticed.

2. *Tuberculosis*.—Rollier started his treatments for tuberculosis with exposure of the feet to sunlight and then little by little exposing the whole body, except the head. The duration of exposure was increased as treatment progressed.

The results in bone and joint tuberculosis are very marked. According to Rollier, phalanges which have entirely disappeared, may be recalcified so as to be indistinguishable in radiographs from normal tissue.

There are noticeable results in sinuses and ulcers; a profuse discharge occurs followed by the formation of healthy granulations.

How does sunlight act on tuberculosis? Rollier says it is in proportion to the pigmentation. Doubtless changes resulting in pigmentation give a stimulus to the metabolism of the whole body, since pigment acts as a sensitizer to light. Also the effects of light in the production of lymphocytosis must be considered as a factor.

3. *Rickets*.—Light acts as a recalcifying agent. This makes it a valuable and beneficial agent in rickets. Rats, fed on a diet which would produce rickets, do not develop the disease if exposed only for a short time either to sunlight or to the quartz mercury arc. Also, the inorganic phosphorous of the blood serum, which is reduced in the case of children with rickets, comes back to normal under sunlight treatment or the administration of cod liver oil.

4. *Neuritis*.—Many physicians have employed ultraviolet for purposes of alleviating conditions of neuritis. Since there are photochemical changes produced in the epidermis and since these products are carried into the internal system, there is no reason why some definite reaction should not be evidenced by the nervous system. The probability is that light accelerates the action at the synapses.

5. *Hay-fever*.—A considerable number of cases of hay-fever appear to be aggravated by light. Since hay-fever is presumably a nervous affliction, due to irritation of certain hypersensitive tissues in the nose, etc., and since the retina of the eye is, in the last analysis, nothing but a highly developed epidermis, it seems clear that there may be a definite relationship between radiant energy and hay-fever. Nearly everyone is

aware of the fact that people frequently sneeze when going out-of-doors into bright sunlight. The light stimulus, through the branch of the fifth nerve connected with the ciliary ganglia, is reflexed to the nasal nerves. In general, experiments show that relief is afforded either by (1) marked reduction of light energy throughout the visible spectrum through the use of smoke or Crookes B protective glasses, or (2) decided reduction in the visual yellow and green with the transmission of practically all of the ultraviolet. The ultraviolet does not appear to be the disturbing element; rather is it the quantity of energy.

TRANSMISSION OF THE OCULAR MEDIA.

1. *Ultraviolet*.—In 1908 Parsons, of London, and Prof. Baly carried out investigations on the absorption spectra of the cornea, lens and vitreous of rabbits' eyes. These researches were antedated in some particulars by those of Birch-Hirschfeld, Hallauer and Schanz and Stockhausen. In a general way Parsons and others have concluded that (a) the cornea transmits wave-lengths to about 3000 t.m., (b) the crystalline lens to 3500 t.m., while (c) the vitreous transmits to about 2300 t.m. with a decided absorption band reaching from 2800 to 2500 t.m. With reference to the vitreous, it is to be remarked that its principal ingredient is water, and therefore its transmission would be expected to approximate this liquid. Hallauer in 1909 spectrophotographically measured the absorptive power of over one hundred human lenses. For young lenses most of the rays were absorbed at about 4000 t.m. but a certain number of rays between 3300 and 3150 t.m. were able to pass through. With age, the absorption usually lies between 4200 and 4000 t.m. Helmholtz in his *Physiologische Optik* records observation of the entire ultraviolet spectrum of sunlight but we may well doubt the accuracy of these observations. Some recent experimental work carried out by Miss Graham, of the University of California, on the transmission of crystalline lenses, and independently by Dr. Glancy, of the American Optical Company, using visual observation limits in the ultraviolet (both papers appear in the April, 1923, issue of the *American Journal of Physiological Optics*) give the limit of transmission and visibility as about 3200 to 3100 t.m. Mascart, in 1869, with high powered ultraviolet sources, considered lines as low as 3230 t.m. to be visible.

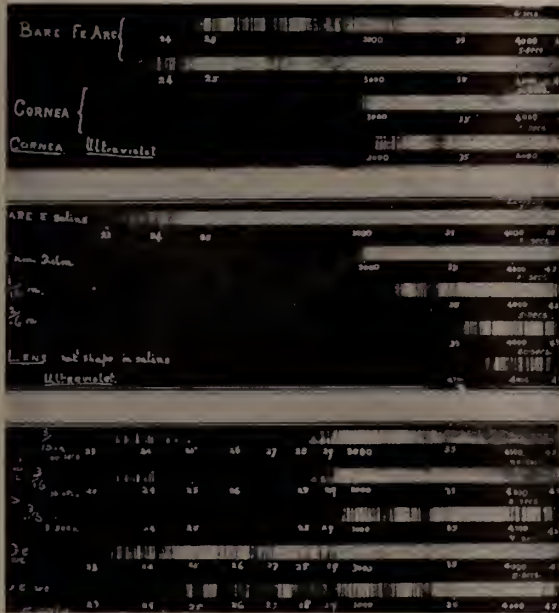


FIG. 5—The ultraviolet transmission of the cornea, crystalline lens and vitreous (Parsons).

however—since the infra-red transmission of water is the same as that of the eye—much of the infra-red radiation is absorbed before reaching the eye. Hartridge and Hill attribute the absorption of radiation from 7,000 to 12,000 t.m. by the iris as the cause of cataract.

3. *Energy Distribution and Density.*—All data show that the outer layer of the cornea absorbs a large percentage of the energy which is not active in producing the sensation of light. Also, the absorbed energy per lumen of light flux incident upon the retina rapidly decreases with an increase in the temperature of the source. About thirty times as much energy is absorbed in the total eye per lumen of tungsten light as per lumen of light from a black body at 5000° C.

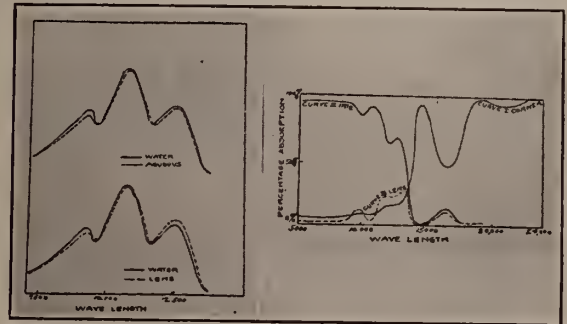


FIG. 6—A comparison of the absorption curves of water and the crystalline lens and the aqueous humour in the infra-red region (Hartridge and Hill).

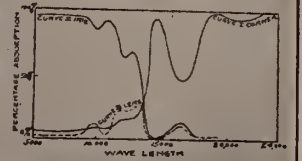


FIG. 7—Curves showing the percentages of infra-red radiation absorbed by the media specified of the amount of energy incident upon the medium named (Hartridge and Hill).

All of these investigations show that the crystalline lens has a powerful capacity for absorbing ultraviolet rays between 3000 and 3800 t.m. roughly. The crystalline lens fluoresces when these rays strike it. Schanz and Stockhausen attributed this fluorescence to the region 3500-4000 t.m. But in this they are doubtless in error, for a fluorescent body always strongly absorbs those rays which induce the fluorescence. Hence this rôle must be allotted to rays transmitted by the cornea and lying between 3000 and 3500 t.m. The fluorescence caused by the ultraviolet absorbed by the lens is a source of disturbance in vision and, since they are useless in so far as known, they may very properly be eliminated by the use of such a glass as Crookes A.

2. *Infra-red.*—Aschkinass, in 1895, published results on the general absorption of the eye and concluded that the transmission for infra-red radiation is analogous to water. The percentage of water in the corneal composition is 90; there is 92 per cent water in the lens cortex and 84 per cent in the lens center. The total eye has been found by Luckiesh to be equivalent to 2.28 cm. of water. The determinations of the transmission and absorption of the incident infra-red by ocular media made by Hartridge and Hill in 1917 show that the infra-red from 5000 to 10,000 t.m.—just above the visible red—is absorbed by the iris to about 95 per cent of the incident energy. About four times the amount of energy is absorbed per unit area of the iris as is absorbed by the lens. The crystalline lens, on the other hand, transmits about 80 per cent of the infra-red radiation, incident upon it, from 12,000 to 24,000 t.m. By reason of the moisture in the atmosphere

The question of energy density in the ocular media using sources subtending large and small solid angles has been discussed by Luckiesh. If the extended object viewed is illuminated with the same density of radiation of the same spectral character as that used for the small object tests at distance, it is obvious that the brightness of the retinal image will be the same and a much greater amount of energy will pass through the pupillary aperture. The energy density would be a million or more times as great as in the case of the less extended source.

It is shown that when viewing luminous objects of small area (subtending a small solid angle) there is no serious concentration of energy in the eye media until the retina is approached. However when viewing extended objects (large solid angle) there is a relatively much greater energy density in the lens and anterior parts of the eye than in the posterior portions. When the retinal images are of the same brightness, there will be a much greater energy density in the lens when viewing an object subtending a large solid angle than when the object subtends a small angle if the spectral character of the illuminant and the intensity of the illumination are the same. This indicates that large sources of a relatively

low visual brightness might be effective in forming cataract or causing eye fatigue if the "absorption of energy theory" is correct. In fact, if the deterioration of the lens is due to ultra-violet rays, the latter might be present in such small amounts as to appear harmless, but when it is recalled that the energy density in the lens is very high when viewing extended objects, such as the sky, pavements, large surfaces of molten glass, metal, etc., it appears to be possible that the ultraviolet rays might be present in sufficient amount to do damage. From his standpoint sunlight, owing to the greater intensities encountered, appears to be probably as effective in producing cataract and eye fatigue as ordinary artificial illuminants, even after allowing for the higher luminous efficiency of the former and the absorption of energy by the water vapor present in the atmosphere.

THE GENERAL PHYSIOLOGICAL EFFECTS OF POWER BURN AND ULTRAVIOLET BURN.

If one looks at a mercury arc lamp, the light has a weird or uncanny effect and is rather irritating. One can see by looking at it that the illumination is high, but one cannot distinguish everything and, in particular, the lamp itself is indefinite and hazy. It is seen, but as it is looked at it disappears: thus the eye is constantly trying to look at it and yet does not succeed and this produces an irritating restlessness. The probable explanation of this effect is that the fovea centralis is blue blind. Therefore the lamp and other objects are seen indistinctly on the outer range of the retina. A similar mercury arc lamp enclosed with a screen consisting of naphthol green gives out only green light and these effects do not exist, but on the contrary the vision is clear, distinct and restful.

There is a faint perception of ultraviolet light in the eye, not as a distinct light but rather as an uncomfortable, indistinct feeling, together with some form of dull pain. Exposures to ultraviolet light produce severe and powerful inflammation. The chemical effects of this inflammation are similar to the effects produced in blue light; inability or difficulty in fixing on the fovea, so that, without impairment of the vision on the remainder of the retina, clear distinction is made impossible and reading becomes difficult or impossible, especially in artificial illumination. It seems as if the macula were over-irritated and when used, for instance in reading, becomes very rapidly fatigued and the vision begins to blur.

The inflammation of the eye produced by ultraviolet rays appears to be different from that caused by exposure to high-powered radiation of no specific wave-length, as the light of a short-circuit of an electric system or an explosion. The main differences are: (1) The effect of high-power radiation (power burn) appears imme-

diately after exposure, while that of ultraviolet radiation (ultraviolet burn) appears from six to eighteen hours after exposure. (2) The external symptoms of inflammation, such as redness of the eyes and face, swelling and copious tears, are pronounced in the power burn but are very moderate or even entirely absent in the ultraviolet effects. (3) Complete recovery from power burn is a matter of a few days, while complete recovery from ultraviolet burn is slow and may cover months or years, and an abnormal sensitiveness to the shorter wavelength radiation may persist indefinitely.

The general symptoms of power burn consist of temporary blindness, severe pains in the eyes, redness of eyes and face, etc., all of which increase in severity for a few hours and then subside. Such burns can occur because of the fact that most artificial light is given by temperature radiation and therefore this radiation consists of a very small percentage of visible light, the major portion of the energy being in the infra-red.

In the case of ultraviolet burns, the onset of the symptoms is from six to eighteen hours after exposure, with severe deep-seated pains in the eyes. The external inflammation is moderate or absent, the vision is not temporarily affected, but the inability to focus the eye upon any object is noticeable. The pains in the eyes and the headaches yield rather slowly: for weeks and even months attempts at close work, such as reading, lead to blurring of the vision; the letters of printed words appear to run around, and the eye is unable to hold them fixed, while headaches and severe pains in the eyes follow such attempts. In severe cases these effects may last for months and even years. Very often, if reading is continued for any length of time or in poor illumination as under some of our modern lighting conditions, the blurring of vision and the headaches return years after the exposure. Of course, the more frequent ultraviolet burns are not so severe and recovery occurs in a few weeks' time.

CATARACTS.

1. *As Possibly Due to Ultraviolet.*—The extent of our knowledge of the influence of radiant energy of specific kinds and amounts upon the human eye and hence indirectly upon the comfort and efficiency of human beings is as yet very limited. We have, for example, two rather divergent and apparently conflicting ideas as to the influence of radiant energy as a causative element in the production of cataract. Both of these views may be found to be compatible, however; either the infra-red or the ultra-violet may superinduce cataract under certain physiologic conditions of which we are, as yet, quite in the dark. It is this knowledge of the physiologic conditions and of the physiologic reactions that light of various wavelength produces which we

in large measure lack. Some of the earliest work done on the relation of radiant energy and the eye was carried out by Schanz and Stockhausen, who concluded that the ultraviolet is deleterious to human vision and to the ocular organism by virtue of the fact that certain of the shorter wavelengths are transmitted by the cornea and are absorbed by the lens, causing the lens to fluoresce. This fluorescence interferes with the sharpness of vision and hence causes a constant lenticular irritation whereby the lens repeatedly endeavors to sharpen the vision by slight changes of focus. In addition, when large quantities of such ultraviolet radiations fall upon the eye there is developed what is called ultraviolet burn. These effects come on several hours after exposure, evidencing excessive lachrymation, severe headaches and eye aches and often paresis of accommodation. The symptoms disappear in general rather slowly and often leave a permanent weakness of the eyes. As to whether or not there is any direct, specific action of ultraviolet upon the retina is questionable. At least we are positive that very small quantities only of the shortest wavelengths ever reach the retina. It is probable that retinae which are very thin and highly supersensitive to light may be affected. Certain experimenters believe that evidence is at hand to show the action of such wavelengths upon the ganglion cells and the cells of the nuclear layers, resulting in chromatolysis and vacuolation of the cells.

Within the past five years Dr. W. E. Burge has carried out a series of extremely interesting experiments upon cataracts produced in the eyes of fish living in water containing small percentages of calcium chloride or sodium silicate. Chemical analyses of many hundreds of cataractous lenses from India and the United States have demonstrated the high percentage of calcium (up to 15 per cent) in the ash of such cataractous lenses. It is well known to all persons interested in eye work, that cataracts are extremely common in India and, in general, people living in the tropics. Analyses also show large quantities of silicates, while no silicates

are found in those from the United States. Silicates may be accounted for in part by the fact that certain sects or classes in India eat siliceous earths as part of their diet, while the prevalence of cataract may be accounted for by the large amount of ultraviolet radiation present in tropical sunshine and the silicates present in the eye media. Burge has, therefore, endeavored to prove the relationship between the interaction of ultraviolet light and the proteins of the lens and chemical salts to account for cataract. Very briefly stated, we believe that it must be contended from his experiment, that whenever excessive salts exist in the humour and the nutritive sources of the lens, there is added liability to cataractous conditions.

Burge's principal conclusions are:

1. Sodium and potassium salts in sufficient concentration act specifically on the nucleus of the lens, producing nuclear opacity, while calcium salts act specifically on the cortex of the lens, producing cortical opacity.

2. The short wavelengths of the spectrum produce a molecular

rearrangement in the protoplasm of the cells of the crystalline lens, so that inorganic salts such as are found to be greatly increased in human cataractous lenses can combine with the protoplasm to precipitate it, and hence produce an opacity. That the change produced in protein by exposure to ultraviolet radiation is molecular in character and not atomic, was shown by the fact that the exposure did not affect the conductivity of the protein.

3. Since ultraviolet radiation produces a molecular rearrangement in the living material of the lens so that weak solutions of inorganic salts can combine with it to form a precipitate, and since sodium salts are specific for the modified protein of the nucleus and calcium salts for that of the cortex, the assumption is made that of the two general types of cataract, nuclear and cortical, sodium salts function in the production of nuclear and calcium salts in the production of cortical cataract.

4. The lens protein is not only rendered more sensitive to the action of certain inorganic salts by exposure to ultraviolet radiation, but it is also rendered more sensitive to the action of certain dyes, as is shown by the fact that lens protein exposed to ultraviolet radiation takes certain dyes more readily than the unexposed protein.

5. That ultraviolet radiation kills living cells by coagulating their protein may be seen by

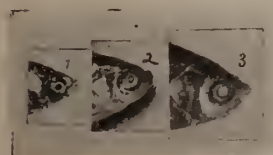


FIG. 9—Fish (1) living in tap water and exposed to ultraviolet radiation for 12 hours. Fish (2) living in 0.1 per cent sodium silicate and exposed to ultraviolet radiation for 12 hours. Fish (3) living on 0.1 per cent sodium silicate and exposed in ultraviolet radiation for 24 hours. (One of Dr. Burge's experiments.)

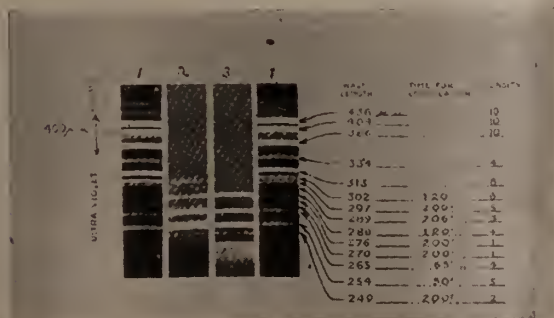


FIG. 8—Photograph of spectrum of quartz mercury arc. (1) Made on a photographic plate. (2) Made on lens protein extracted by 0.1 per cent calcium chloride. (3) Made on a thin layer of lens, immersed in 0.1 per cent calcium chloride after the exposure (Burge).

direct observation through the microscope during an intense exposure of unicellular organisms such as paramœcia.

6. The effective region of the spectrum in changing the living material of the cell or protoplasm lies between 2,540 t.m. and 3,020 t.m. The most effective region is around 2,540 t.m. for the small quartz mercury burner used, and around 3,020 t.m. for the large burner.

7. An opacity of the lens, or cataract, can be produced in fish living in solutions of those salts found to be greatly increased in human cataractous lenses, by exposing the eye of the fish to radiation from a quartz mercury vapor burner. This cannot be done by exposing the eyes of fish living in tap water, which contains only very small quantities of these salts.

8. Abnormal quantities of the salts of calcium and sodium silicate in the cells of the eyelid and of the cornea increase the effectiveness of ultraviolet radiation in producing trouble in these structures. Abnormal quantities of calcium salts on the skin presumably increase the effectiveness of the short wavelengths in sunlight in producing sunburn.

9. In looking for the cause of cataract it would seem that at least two factors should be considered, the one a modification of the protein of the lens by ultraviolet radiation, and the other certain inorganic salts by which the modified protein can be precipitated. According to this hypothesis, the prevalence of cataract among people living in the tropics could be accounted for by the increase in the radiant energy factor modifying the lens protein so that an excess of salts, such as silicates in case of people in India, would combine with the protein to precipitate it and produce an opacity of the lens or cataract. The prevalence of cataract among glass blowers is also accounted for by the excess of the radiant energy factor, the assumption being that glass blowers who develop cataract have a more or less disturbed condition of nutrition, expressing itself in an increase in sugar in case of diabetics calcium salts, or some other substance, which can combine with the lens protein made sensitive by the action of the short wavelengths. The prevalence of cataract among diabetics is accounted for by the increase, not in the radiant energy factor, but in the chemical factor, specifically dextrose, acetone, B-oxybutyric acid, and so forth.

2. *As Possibly Due to Infra-red.*—On the other hand, we find some valuable work, as for example, the researches of Hartridge and Hill, of Cambridge, England, in which the seat of the irritation leading to cataractous conditions may be attributed in many cases to the infra-red or long wavelengths of energy. These are freely transmitted by the cornea and are absorbed in large part by the iris which, lying close to the

lens and being the seat of the absorbed energy, will cause nutritional changes in the lens by virtue of the abnormal stimulus to the processes controlling the secretion of the humour. Such a view seems entirely reasonable and probable. Hence we have much need of further experimental work along these lines. It may be accepted as definitely proven, however, that light, either by virtue of its kind or its quantity, may aid in or be the primary cause of cataractous formations when certain physiologic conditions are present.

Hartridge and Hill say: Firstly, the heat radiation is probably absorbed but slightly by the pigment in the substance of the iris, by far the greater amount of energy passing through and being finally absorbed by the pigment on its posterior surface. In the case of blue-eyed individuals the pigment in the stroma of the iris is absent and the posterior pigmentary layer is alone effective in absorbing radiant energy. This means that not only does the absorbent layer come in intimate contact with the posterior chamber of the eye, but also with the processes of the ciliary body themselves. A rise of temperature of the pigmentary layer due to the absorption of heat must necessarily cause at the same time a rise of temperature by conduction to surrounding structures; in this the glandular elements of the ciliary body take part.

Secondly, the very intimate relationship that exists between the arterial supplies of the iris and ciliary processes may be mentioned, both coming off as branches of the *circulus arteriosus major*. It is possible that the lymphatic drainage is no less intimate; it is also conceivable that the vaso-motor nerves to these arteries also send glandulo-motor nerves to the ciliary processes; on these points, however, we have only the evidence of analogy with other secondary organs.

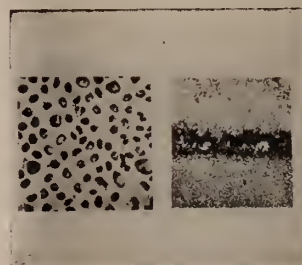


FIG. 10—Exp. 70. Magnetite arc. Double lens system, no screen, exposure 20 minutes. Lens capsular epithelium 2 months after exposure, showing reparative changes. The nuclei vary greatly in size and many of them are extremely large. Some of the cells contain double nuclei. The small dots in the cells are nuclear buds constricted off from the main nuclei. Photo X264.

FIG. 11—Magnetite arc. Double lens system. Crown glass screen (295 mm.), exposure 20 minutes. Lens capsular epithelium 19 hours after exposure, showing wall of deeply staining cells, corresponding in position to the pupillary margin. Photo X42. (Verhoeff and Bell.)

There are several remarkable features in the occurrence of glassmakers' cataract; the very long period taken for the condition to develop does not at all suggest any pathological change of an inflammatory character, neither has any obvious change in any other structure of the eye

apart from the lens being described. Thus the pupil is normal in size and reaction to light, which would not be the case if it had been the seat of any chronic inflammatory change. It would seem to us more likely, therefore, that the change in nutrition of the lens is one brought about by some physiological alteration in the secretory mechanism of the aqueous rather than by a pathological change. We have only to postulate a secretion of aqueous when heat falls on the iris to obtain what appears to be a plausible hypothesis of the formation of the cataract. Normally, aqueous is secreted in small amounts all the time; when heat falls on the iris a larger secretion occurs, which is followed when the stimulus stops by a period of rest. This stimulus, falling regularly for long periods, in time causes the secretory mechanism to be more and more dependent on the external stimulus. The secretion becomes periodic in character and, instead of the lens receiving nourishment all the time, it only receives it at intervals, with the result that the least well-nourished part of the eye suffers, and cataract develops.

relative to cataract formation and other effects on the eye are:

1. Abiotic (lethal) action for living tissues is confined to wavelengths shorter than 3,050 m.
2. The lens protects the retina of the normal eye completely even from the small percentage of abiotic rays which can penetrate the cornea and vitreous humor.
3. To injure the cornea, iris and lens by thermal effects of radiation requires extreme concentration of energy.
4. No concentration of radiation on the retina from any artificial illuminant is sufficient to produce injury thereto.
5. Eclipse blindness is due to the action of the concentrated heat on the pigment epithelium and choroid.
6. Snow blindness may occur after long exposures due to ultraviolet light.
7. Vernal catarrh and senile cataract are not due to radiations of any particular kind.
8. Glass blowers' cataract is not due to ultraviolet rays but probably to the overheating of the eye as a whole with consequent disturbed nutrition of the lens.

9. Commercial illuminants are entirely free of danger under the ordinary conditions of their use. The glass globes are sufficient to destroy any deleterious effects due to ultraviolet.

10. Protective glasses are valuable because they reduce the total amount of light to a point where it ceases to be psychologically disagreeable or to be inconveniently dazzling.

The writer of this paper is in general agreement with the conclusions of Verhoeff and Bell in so far as everyday or usual exposures to radiant energy are concerned. Doubtless, however, both ultraviolet, visual or infra-red radiation, in sufficient quantity, can interfere with the nutrition of the crystalline lens.

GLARE.

One of the most prevalent evils in modern artificial lighting is that of glare. Glare may be said to be such a brightness within the field of vision as to cause discomfort, annoyance, interference with vision, or eye fatigue. It is, of course, a positive waste of energy, just such a waste as occurs when one places a brilliant light by his side as an auxiliary. There are five principal causes of glare: (1) The light source may be too bright or it may give off too high a candlepower for square inch of area, (2) the total light may be too powerful for comfort, *i.e.*, it may give off too great a total candlepower, (3) the contrast may be too great between the light source and its darker surroundings; (4) a given light source may be located too near the eye or it may

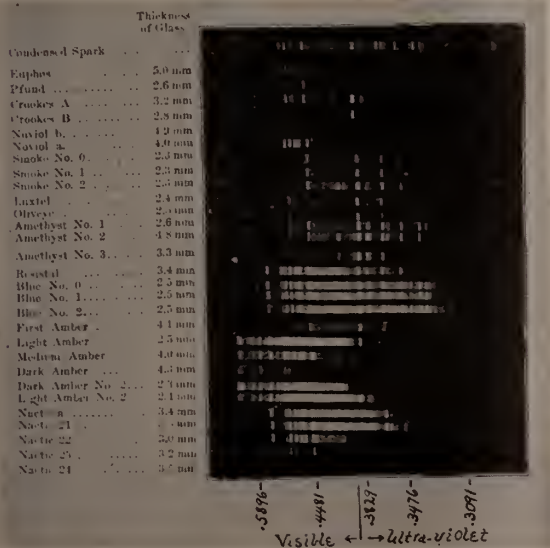


FIG. 12—Transmission of various ophthalmic glasses in the visible and ultraviolet (Sheard).

Verhoeff and Bell criticize Burge's assumption that calcium and other salts are present in undue quantities in the lenses of certain individuals and that this renders such lenses more vulnerable to the short waves of daylight. These investigators point out that cataracts usually begin at the periphery below and, furthermore, that the presence of salts in senile cataract is a result and not a cause. The fatal objection to the theory of Burge they feel to be the fact that ultraviolet solar rays cannot reach that portion of the lens (posterior pole) where cataract usually begins.

The chief conclusions of Verhoeff and Bell

be too near the center of vision for comfort, *i.e.*, within too small an angle with reference to the ordinary line of vision; and (5) the time of exposure may be too great and the eye may be subjected to strain.

Glare is objectionable because it tends to disturb the nervous system, it causes discomfort and fatigues, and thereby reduces the efficiency of the worker, and lastly, it interferes with clear vision and may thus reduce the efficiency of the worker or increase the risk of accident or injury.

Modern illumination cannot be criticized because of its excessive ultraviolet radiation, for little or none of it ever reaches the eye; but it may often be criticized because of its excesses or deficits, by reason of distribution, in our homes, offices and factories.

THE INCIDENCE OF CANCER OF THE CERVIX IN PREGNANCY.*

By **BARTON C. HIRST, M.D.**,
PHILADELPHIA, PA.

IT is universally believed by the physicians of America, including specialists of the largest experience, that cancer of the cervix is a very rare complication of pregnancy. This opinion seems to be well founded. Cancer is a disease of advance age. It soon develops physical conditions of the cervix, making conception impossible, and the experience of the chiefs of the largest clinics in the country is extraordinarily small, some of them never having had a case and most of them having records of but two or three.

In order to obtain precise information on this point a questionnaire was addressed to a number of teachers and heads of important clinics in America. There was a most kind response to this questionnaire, the results of which are herewith appended:

A special table has been prepared of the records of the Lying-In Hospital in New York City, having the largest number of obstetrical cases of any institution in America. Another table has been prepared of the records of the Mayo Clinic which, while it does not show the incidence of carcinoma in pregnancy, is a remarkable series of cases in a comparatively short time and among a small number of pregnant women. But then, as is well known, the Mayo Clinic is a sort of clearing house for most of the surgical complications in the country.

CANCER.

CASES CONFINED IN THE SERVICE OF THE LYING-IN HOSPITAL, 134,000 IN 32 YEARS.

Uterus and vagina.....	1	Stomach	2
Cervix	4	Pancreas	2
Omentum	1		
Ovary	1		12
Breast	1		

* Read at the Annual Meeting of the Medical Society of the State of New York at New York City, May 23, 1923.

NOT PREGNANT, OR IF PREGNANT, DISCHARGED FROM LYING-IN HOSPITAL BEFORE CONFINEMENT.

Ovary	4	Uterus and vagina.....	1
Uterus	9	Rectum	1
Liver	1	Appendix	2
Breast	2	Intestine	2
Cervix	4		
Vagina	1		27

My personal experience includes only three cases, one an inoperable carcinoma of the cervix, late in pregnancy. The woman was delivered by Cæsarean section near term; the baby survived but the mother died some months afterward from the progress of her disease.

The second case had several points of interest: The patient was a young woman twenty-five years of age, an actress with a history of syphilis and a four plus Wassermann. The carcinoma of the cervix was operable; the history of its duration was obscure. The patient was delivered by a Cæsarean section immediately followed by a complete hysterectomy according to the Wertheim technique. The patient made a good operative recovery and the baby survived, but six months later there was unmistakable evidence of recurrence which, in spite of radium and X-ray treatment, progressed rapidly to a fatal termination.

There was an interesting association here of syphilis and carcinoma which I have observed several times before, so that I cannot help thinking that carcinoma follows syphilis in young people too often to be a mere coincidence, an opinion, I believe, now shared by many.

The third case in my experience was in a woman forty years of age pregnant for the third time; her mother had died of carcinoma of the uterus and her cervix had been amputated some two years before on account of an unhealthy and suspicious appearance. When first seen she was four months pregnant; there had been a history of irregular bleeding throughout almost the whole duration of pregnancy. She had been examined by an expert gynecologist who assured her that there was nothing alarming in her condition, but the family insisted on another opinion and I was asked to see her in consultation with Dr. Reynolds Wilson. I found a small ulcerated spot on the vaginal portion of the cervix, no larger than my little finger nail. A small piece of tissue was removed from the center of this area and a microscopic examination was positive for malignancy. It was an incipient squamous epithelioma. A pan hysterectomy of the extended sort was performed without evacuation of the uterus. The specimen was examined after its removal and again found to be malignant. The specimen was subjected to two or three pathologists, as the difference in opinion about the diagnosis had created considerable feeling; all the reports coincided. This was eleven years ago; the patient is at the present time in perfect health.

ANSWERS TO A QUESTIONNAIRE

Reporter	No. of Pregnancies	Institution	Operations, Site of Growth and Number of Cases in Pregnant Women
G. G. Ward	3,130	Woman's Hospital, New York City	One epithelioma of the vulva
F. C. Holden	Not stated	Bellevue Hospital and private practice	
Reuben Peterson	Not stated	University Hospital, Ann Arbor Mich.	Not one case out of 500 cases of cancer of the uterus; reporter has not seen a case
Richard C. Norris	10,000	Preston Retreat	
Richard C. Norris	Not stated	Methodist Hospital, Philadelphia	One case, carcinoma of cervix; Cæsarean section followed by hysterectomy
J. B. DeLee	50,000	Chicago Lying-In Hospital and Dispensary	Two cancers of the cervix
W. E. Studdiford	Period of 10 yrs. No. not stated	Sloane Maternity	No case in Sloane; 2 in personal experience: carcinoma of cervix, hysterectomy at fifth month of pregnancy, well 7 years later; carcinoma of cervix; inoperable, misc. at 6 months, patient 26 years old
J. W. Williams	25,000	Johns Hopkins Maternity.	Carcinoma of cervix; Cæsarean section followed by radium; patient died
Emil Ries	Period of 26 yrs. No. not stated	Michael Ries Hospital	
Arthur H. Curtis	No. not stated, Period of 10 yrs.	St. Luke's Hospital, Chicago	Estimated No. at possible; six
F. S. Newell	"Many thousands"	Boston Lying-In	One case; another case seen in Boston City Hospital by reporter
E. P. Davis	Period over 30 yrs. No. not stated	Jefferson Maternity, Phila. Hospital	One cancer of rectum: Cæsarean section; hysterectomy; radical operation; recovery; cancer breast; operation refused; died; epithelioma of cervix; high amp. with cautery knife without interrupting pregnancy; delivered subsequently; naturally; one inoperable carcinoma of cervix; Cæsarean section
Austin Flint	Over 25,000	Manhattan Maternity	One case: v. para; aet. 34; forceps delivery; inoperable involvement of cervix and vagina; died of pneumonia
Asa B. Davis	137,996	Lying-In Hospital and Out-Patient Dept., N. Y.	One of uterus and vagina; four of cervix; one each of ovary and breast
B. C. Hirst	Upwards of 40,000	University Mat., Phila. Hospital; S. E. Dispensary, Maternity Hosp.	Three of cervix; Cæsarean section on inoperable case; hysterectomy and coincident Cæsarean; recurrence; death; hysterectomy in fourth months of pregnancy; remained well
John O. Polak	5,000	Long Island College Hosp., N. Y.	One early and one late; refused operation; cervix

UTERINE MALIGNANCY COMPLICATING PREGNANCY
REPORT OF MAYO CLINIC, BY DR. R. D. MUSSEY

No.	Name	Date of Registration	Period of Gestation	Location and Nature of Growth	Treatment	Recurrence or Metastases	Condition	
							Living	Dead
384667	Mrs. W. M. H.	2/21/22	16 weeks	Myxosarcoma, uterine polypi	Total hysterectomy with radium and X-ray	Pulmonary, 4 months		+
282938	Mrs. B. F. S.	8/2/19	12 weeks	Extensive epithelioma of the cervix	Total hysterectomy followed by radium	Spinal, 3 months		+
129591	Mrs. C. R. W.	4/26/15	22 weeks	Extensive epithelioma of cervix	Total hysterectomy	—	Alive and well, 7 years	
327997	Mrs. E. B. M.	8/4/20	34 weeks	Inoperable carcinoma of the cervix.	Porro-Cæsarean	—		Pulmonary embolism, 24 days. Post-operative
171773	Mrs. H. L.	9/8/16	16 weeks	Epithelioma of the cervix	Radium and X-ray	?		+
202077	Mrs. D. B. S.	7/26/17	6 weeks	Epithelioma of the cervix	Vaginal hysterectomy	—	Alive and well, 4 years	
23205	Mrs. W. A.	5/3/09	Full term	Carcinoma of cervix	Porro-Cæsarean	—		Eclampsia, 4th day. Post-operative
67545	Mrs. G. S.	5/7/12	Full term	Extensive carcinoma of the cervix	Porro-Cæsarean; total hysterectomy	Pelvic in 5 months		+

During this period of thirteen years, approximately 3,500 pregnant women registered at the Clinic.

When one looks into the subject a little more deeply it is surprising that our experience in this country should be so limited. Carcinoma of the cervix in women of child-bearing age is by no means uncommon; for example, Dr. Reuben Peterson's report on Age distribution and Age incidence in five hundred cases of cancers of the uterus, published in *Surgery, Gynecology and Obstetrics*, December, 1919, shows 206 cancers

of the uterus out of five hundred, in women from 20 to 45 years of age, and Cragin, Wells and deRouville, as Peterson points out, have published authentic accounts of cases of carcinoma of the uterus in girls of 18. In its incipient stages there is nothing about carcinoma of the cervix which should interfere with impregnation, and when one comes to investigate the European records in this matter, it is surprising, if not

startling, to find that their experience is so different from ours.

E. O. Gross, of Kiel (*Centralbl. f. Gynak.*, xlv, 567), reports (1910-1921), six cases of cancer of the cervix occurring during pregnancy, representing an incidence of 0.065% among all cases of pregnant and parturient women and 2.5% of carcinoma (columnar cell) occurring during the child-bearing age. From collected cases in literature the author estimates the incidence as one in 1,867 cases, or 0.053%. That is, among 224,080 childbirths and pregnancies, he found 120 cases of columnar cell carcinoma.

He believes, however, that the actual incidence is about five times greater than indicated above. His personal observations comprise 34 cases in which malignancy was noted from one to twelve months post-partum (24 of them after abortion). Of the 34 cases, 24 showed definite evidence of the presence of cancer (unrecognized) simultaneously with the pregnancy; in 3, the co-existence was only suspected, and in 7 it could be excluded. In 5 (of the 24) or 16.7% the symptoms indicated the presence of cancer before conception, artificial termination of the pregnancy being found necessary in all.

F. Wolff, of Breslau, Allheil Hosp. (*Centralbl. f. Gynak.*, 1922, 1910-1921), reports fourteen cases of cancer of the uterus occurring during pregnancy (six cases) or immediately after childbirth (eight cases) and coming under observation within one year of childbirth. The article gives no indication of percentage of incidence.

A. Meyer, Tübingen (*Centralbl. f. Gynak.*, 1921, xlv, 629, 1902-1920), observed eighteen cases of cancer of the uterus associated with pregnancy out of a total of 1,106 cases of carcinoma of the uterus (.6%), and 88 cases or 3.4% occurring within one year after childbirth.

G. Wolff, of Breslau (*Arch. f. klin. Chir.*, 1921, xvii, 505) gives the following table:

Cancer of Uterus No.	Pregnant	Lactating	Preg. and Lact. Combined
Schwarzkopf . 395	3 (0.8%)	4 (1.0%)	7 (1.8%) = 14 Cases
Horig 195	1 (0.5%)		1 (0.5%) = 2 Cases
Salomon 200	1 (0.5%)	3 (1.5%)	4 (2.0%) = 8 Cases
Wesmann 106	2 (1.9%)		2 (1.9%) = 4 Cases
Rosenstein 162	...	2 (1.2%)	2 (1.2%) = 4 Cases
1058			16 (1.5%)

Wolff reports personal observations, 1903-1920:

214	5 (2.3%)	8 (3.7%)	13 (6.0%) = 26 Cases
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H. R. Spencer (*Brit. M. J.*, 1920, 1,320) reports on ten personal observations of cancer of the cervix occurring during pregnancy; cites various other authors, but gives no incidence percentage.

O. Sarway, Tübingen (*Veit's Handb. d. Gynak.*, 111; 2) Wiesbaden, 1899, cites:

	Childbirths	Ass. with Carcinoma
v. Winckel	20,000	10
Stratz	17,832	7
Sutugin	9,000	3
Tubingen Klinik	5,001	7
(15 years)	51,833	26=0.05%

He concludes that pregnancy is a relatively rare complication of carcinoma. It apparently affects multiparous women mostly between the ages of 31 and 40 years (66.7% of the cases). The neoplasm usually originates somewhere in the infra or supravaginal portion of the cervical canal, and as a rule has developed before the onset of pregnancy.

In the second edition of *Veit's Handb.*, Wiesbaden, 1908, Sarway reports on 240 collected cases. To the table already given he adds:

	Childbirths	Ass. with Carcinoma
Rostock Klinik	2,287	4
(14 years)		
Glockner	26,000	17
Orthman	4,028	6
	32,315	27
	51,833	26
	84,148	53

This makes an average of one in 1,600 cases, or 0.06%.

He cites the following authors as having observed the onset of pregnancy during the course of carcinoma of the cervix:

	Carcinoma	Pregnancy
Stratz	1,034	12
Olshausen	479	12
Pfannenstiel	282	7
Glockner	974	17
Heinsius	327	1
Orthman	116	6
Wertheim	600	6
	3,812	61=1.6%

E. Wertheim, Vienna (Wiesbaden, 1904), cites Sarway (in collected cases), estimates an average of one case of carcinoma of the uterus in 2,000 cases of pregnancy.

Glockner gives an average of one in 15,000; Orthman about one in 670. Cites Hense's report on 41 cases operated during pregnancy but gives no incidence percentage.

Hense, Koninsberg (*Zeitschr. f. Geburtsh.*, 1901), reports on 122 cases of pregnancy associated with cancer, but gives no incidence percentage. Also gives a table of 92 collected cases likewise without incidence percentage.

Among these interesting statistics gathered from recent European literature it will be observed that Gross reports 34 cases noticed within 12 months post-partum and 24 of these he be-

lieves existed unrecognized in pregnancy, and in five the cancer antedated conception. Some explanation for this discrepancy between the European figures and those of this country can be found in the acknowledged greater frequency of cancer in Europe, but is it not possible that we are overlooking incipient carcinoma in some of our pregnant patients? We have improved our practice remarkably in ante-natal observation of pregnant women in the last few years, but I fear that a systematic examination of the vagina and cervix through a speculum is not the universal rule in our pre-natal clinics that it ought to be. Much has unquestionably been accomplished in follow-up systems in this country, but there is still room for improvement. I do not believe that the most thorough follow-up system would show anything like the figures which Gross claims to be correct, namely, five times greater than one in 1,867 cases, which he found to be the incidence in one set of records, his claim being that five cases to one were overlooked in pregnancy and were discovered later on post-partum but in such a condition and with such a history as to demonstrate that the carcinoma had been overlooked during pregnancy. But incorrect as these figures might be for this country, Gross' statement should incite us to look more carefully for this possible consequence of parturition.

We are so imbued with the idea that carcinoma of the uterus is an almost unheard-of complication of the process of generation that perhaps we do not look for it as carefully as we might and are too apt to concentrate our attention on the more frequent and better-known consequences of child-bearing.

It is quite possible that if we bear in mind the facts brought out in this comparison of the incidence of cancer of the uterus in pregnant women in Europe and America that we may have to revise the figures for this country which have just been presented.

It will certainly do no harm to keep our eyes open for this possible condition in our follow-up observation of child-bearing women. By doing so we will contribute something to that movement for the early recognition of cancer which will do much to reduce the mortality of this dread disease, unquestionably becoming commoner in America than it once was. Indeed, with the increasing complexity of our civilization and the increasing density of our population, it is to be feared that our figures for the incidence of cancer in general will before long approach, if they do not equal, the frequency of this scourge of mankind in Europe.

CHEMICAL SURGERY IN CHRONIC CERVICAL ENDOMETRITIS, WITH RATIONALE, TECHNIQUE AND CASE REPORTS.*

By C. W. STROBELL, M.D.,
NEW YORK CITY.

THE operation which I am about to describe strikes at the root of practically all chronic pelvic diseases of women, having their origin in cervical infections.

The procedure suggested itself to me, from a study of the work of Curtis, Sturmdorf, and Langstroth.

These men have shown conclusively that our preconceived ideas regarding the particular way in which the pelvic organs become involved in this disease, are incorrect; and they have given us a conception of the New Gynæcology which teaches that ascending infections do not often involve the pelvic organs by continuity of endometrium and lining of Fallopian tubes, but rather by way of the uterine lymphatics, affecting primarily, the parametria, and secondarily, the adnexa.

This conception of the mode of progression is rational and consistent; moreover, it is in absolute harmony with our knowledge of the functions and operations, in health and disease, of the lymphatics in general.

It is the business of the cervical lymphatics to remove the toxines generated by the disease. These toxines are highly irritating to the delicate lymphatics and are prone to set up agglutinative inflammations in their course, with the natural sequence of distorted structures, obstructed circulation, and degenerative changes. These in turn, interfering with function, endanger life and lead straight to the operating table.

Millions of uteri have been curetted needlessly under the old teaching. We have produced lacerated fields where no disease existed, through our obsession that in chronic endocervicitis, the uterine cavity must always be in the same condition as the cervical. As a result, during curettage, the operator's attention would be centered upon the endometrium as the important area, and the cervix slighted, as being of not much consequence. Yet, even had it not been slighted, the curette would not have eradicated the thousands of infected gland fingers, projecting their tips deeply into the muscularis, nor would it have accomplished more than multiple laceration of the cervical mucosa. Furthermore, regenerative activity ensuing upon such traumatism, would merely overshadow and hold in abeyance the infective process for a time, when these little infected gland tips would pull themselves together again, as it were, and re-establish the status quo.

* Read before the Obstetrical and Gynæcological Section of the New York Academy, April 24, 1923.

When Dr. Sturmdorf published his "Coring" operation I was deeply interested, and having at the time a case suitable for that technique, proceeded at once to employ it. My impression was that while it is a most thorough, well-planned, scientific and ingenious operation, it is practically a partial amputation of the cervix, hence not universally applicable in this disease as impairing the child-bearing function.

Dr. Langstroth has followed out the Sturmdorf idea and claims that he "Cores" out only cervical mucosa. This I find difficult of comprehension, since, if he is to get results, he must ablate muscularis, as in the Sturmdorf technique.

However, while I am stating my impressions merely, as leading up to the presentation of a different procedure, inspired by the work of these pioneers, I trust that they will not be construed as unfriendly criticism, but simply as an earnest and conscientious effort to advance this growing knowledge a step.

To remove the diseased mucosa and at the same time to destroy infection resident in glandular prolongations in the muscularis, without destruction of these glands; to preserve intact, through regeneration, the musculature contour and physiological function of the cervix; this is the problem. To accomplish it is to rid the patient of her dangerous focal infection; her abhorrent, pestiferous, leucorrhœal discharges, and the interminable, mostly futile palliative applications and tamponadings. As a natural sequence, she could expect almost immediate cessation of her leucorrhœa and a steadily progressive disappearance or retrogression of pelvic inflammation without further treatment.

Long observation of the behavior of K O H on human animal tissues—the peculiar therapeutic inflammatory reaction in structures adjacent to those acted upon—the striking regeneration to normal of mucous surfaces, the desirability of avoiding cutting, or lacerating procedures, coupled with the fact that the chemical creates its own aseptic field, encouraged me to make trial of this agent as a radical cure.

Application of the idea has been followed by most satisfactory results. I have now applied the treatment in upwards of one hundred cases, and without disappointment.

The perfected technique I am most happy to describe, and trust that you will employ it in your cases of obstinate cervical leucorrhœa. But, as in my cancer work, I must beg you to make haste slowly. One must familiarize himself with the characteristics and "drive" of potent chemical agents in order that it may be employed with only desirable results.

I am, of course, fully aware that local application of caustic potash to cervical infections is not new. Nearly all text-books on gynæ-

cology mention its use, but only as an occasional palliative resource, usually applied in from five to twenty-five per cent solutions, frequently repeated, and but rarely to exceed this.

The novelty of the operation about to be described consists in the substitution of a chemical substance for the curette, *et al*, in affecting the radical cure of chronic cervical infections.

THE TIME TO OPERATE.

The best time to perform the operation is directly after the cessation of menstruation. This will assure ample time for completion of the healing process before the next period.

The best time of day for the patient to enter the hospital is at two o'clock in the afternoon, when she is immediately put to bed to cool off.

NARCOSIS.

The best narcosis for this operation is twilight sleep carried to the surgical stage. All my cases have been done under this perfect form of anesthesia, which coincidentally, also confers anoci-association of Crile.

Production of surgical twilight sleep is as follows:

At four o'clock, afternoon, a hypodermic tablet in solution containing morph. hydrobromide gr. $\frac{1}{4}$, hyoscine hydrobromide gr. $\frac{1}{100}$, cactoid gr. $\frac{1}{64}$, is administered hypodermatically. At four-thirty o'clock, (a half hour later), a second tablet, similar in strength to the first, is administered. (Note here, that if the patient is of phlegmatic, or bromidic type, the second tablet need not be over half strength). During the production of narcosis the room is to be kept darkened and quiet. When the patient is handled, it should be with gentleness, so as not to awaken her. All loud talking in the operating room should be discouraged, and a dampened towel kept over the patient's eyes to shut out light. The patient should be moved to the operating room shortly after the administration of the second tablet and allowed to rest quietly on the table until five o'clock, when the operator may begin his work.

If these directions have been faithfully carried out, the patient will be more or less somnolent, without the slightest bit of nervousness, sometimes even able to help herself into position and to answer questions, but immediately relapsing into somnolence. If the three-quarter dose has been employed, she will maintain her position uncomplainingly and with complete relaxation and comfort throughout. She will have no pain, and will not be conscious of the weighted speculum, nor of the manipulations. If the full dose has been employed, she should be wholly unconscious. Either dose would be safe, but the larger not always required.

OPERATIVE TECHNIQUE.

In preparation, ropes of absorbent cotton, a quarter of an inch in thickness, saturated with water and wrung out in a towel to near dryness, are cut into one-inch sections, to be used generally throughout the operation. These are of value in protecting the vaginal fornices from the action of the chemical, those becoming saturated being quickly replaced with fresh ones.

To proceed, the patient is placed in the lithotomy position and a folded bedsheet pad, eight inches square and two inches thick, placed under the sacrum to take the strain from the back. The heels and knees should be well supported to assure the utmost relaxation and comfort. All procedures should be conducted deliberately and gently. There need be no haste; the sleep will last. The usual preparation of the field with green soap solution and warm plain sterile water is done. Shaving is not necessary. Always the class catheter is used to insure an empty urinary bladder. A weighted speculum is placed in position, and the anterior and posterior lips of the cervix caught up with curved Skeene tenacula.

Graduated, uterine sounds are then successively introduced into the cervix, until the Goodell or other dilator can be introduced and the process completed. Should this process disturb the patient for any reason, such as the presence of rigid os, cicatrices or stenosis, deep infiltration of the cervix through the lateral fornices of a one per cent novocaine solution, with adrenelin may be employed. This, however, in my experience, will not often be necessary. Nevertheless, facilities for the employment of this procedure should always be at hand.

The cervix dilated, the uterine cavity may now be explored, and any instrumentation done that may be found necessary.

So much for preliminaries.

The anterior lip of the cervix is now drawn downward by the tenaculum in the left hand of the operator, the posterior lip being gently made taut by traction on the tenaculum in the right hand of the assistant, standing to the right of the patient. Two of the cotton sponges are laid close up to the cervix, in the posterior fornix, and under the tip of the blade of the speculum, to protect the posterior vaginal wall. The cervix is then moderately drawn down and the anterior and lateral fornices also packed.

The cervical canal is wiped dry and filled with adrenelin soaked gauze for two minutes. This being removed, the free end of a crayon of commercial C. P. potassic hydroxide, held in the grasp of a long, half-curved hæmostat, is rapidly, yet gently introduced into the cervical canal, until it meets the resistance of the contracted internal os, standing guard at the en-

trance to the uterine cavity. The crayon should be made to sweep the walls of the cervical cavity, with a circular wiping motion under moderate pressure. At the expiration of five seconds, the crayon should be removed and the excess liquefied caustic and blood mopped away with the cotton sponges prepared, as described above. The lower lip of the cervix requires special care, as the caustic fluids will gravitate over it. Water, freely applied, is the most effective neutralizer and control. The sponges placed about the cervix for protection of the fornices and vaginal surfaces are removed, and several water-soaked sponges applied in rapid succession to wash out the deeper portion of the vaginal sac. After drying and examination, the parts are prepared as before for a second cauterization, to be done in exactly the same manner, but lasting only four seconds. The operator will be conscious of a strong inclination to keep on cauterizing. This inclination must, however, be resisted, or he will destroy muscularis, and thus court cicatrization and stenosis. Potassic hydroxide rapidly dehydrates and dissolves animal tissue. The softer the tissue, the more rapid and extensive the destruction. Its adequate application is a matter of experience and judgment, for the eye alone cannot measure the extent of the chemical "drive." Should a third application be necessary the caustic should be applied for a period not to exceed two seconds.

In other words, the diseased tissues must be removed, but only just down to the muscularis. If this is done properly, the muscularis not only will not cicatrize, but the histological elements of the mucosa will be regenerated, and the canal relined with normal ciliated columnar epithelium.

Curiously enough, upon applying the remedy, the cervical canal flares from within outward like a trumpet, as though shrinking from contact with the caustic—which it actually does—incidentally affording free access and drainage. This practically completes the operation, which will be seen to be very simple, safe and aseptic.

The blood loss is negligible; there is no danger of post-operative hemorrhage and I have not observed rise in temperature following this work, neither any pain or discomfort.

It remains to describe the dressing. This consists in lightly packing the fornices and vaginal canal with two ropes of plain sterile gauze liberally smeared with sterile vaseline, the ends projecting from the vagina about one inch, to facilitate subsequent removal. This dressing is allowed to remain for forty-eight hours and may then be extracted by the patient herself.

The patient, usually more somnolent after the operation than before, is now removed to the ward to "sleep it off." She will rarely be troubled with nausea or vomiting. It will not be necessary for a nurse to watch at her bedside, as after ether or chloroform. She will sleep

soundly all night and be ready for a good breakfast in the morning. If she desires, she may then go to her home.

During the day she should spend the time reclining. She may take her meals as usual. The following day she may relieve herself very easily of the gauze packing, and begin douching. She may now also resume her usual work or customary activities without detriment in any way.

The after-treatment is simple, carried out by the patient herself, and consists in the self-administration of three vaginal douches daily, consisting of warm boiled saline solution containing one teaspoonful of common table salt in each gallon of water. After two weeks twice a day will be sufficient until the end of the fourth week, when the douches may be discontinued. During these four weeks the patient is to be examined, or rather, inspected on every fourth day, to make sure that all is going as it should. No medications or applications of any kind will be necessary, internally or externally, save the saline. The bowels are, however, regulated during this period, by the use of sodium sulphate, one drachm in a glass of hot water to be taken each morning upon rising.

As to results both immediate and remote, it is noted that the annoying leucorrhœal discharges cease almost at once. A serious discharge from the wounded surface occasionally takes its place for a few days while the cervix is freeing itself of devitalized tissues, but this too soon ceases. Cervical erosions, ulcerations and hypertrophies subside and disappear, and the portio vaginalis resumes its normal form and color. Vaginal, vulval and crural irritations clear up. If this were all, the operation would be amply justified, but there are still the pelvic changes to record. The pelvic soreness, almost invariably present in chronic cervical leucorrhœa, due to peritoneal exudates, adhesions and irritations gradually but steadily subside. Recent parametrial exudates are absorbed. Menstrual and urinary disturbances and dyspareunia are relieved. Backache and the vertical cephalalgia due to pelvic disturbances, also gradually disappear because of the removal of focal infection, and the woman experiences a new lease of life. She is "headed" away from the operating table, toward which she was drifting.

A few reports taken at random from the cases thus far operated upon will serve to illustrate:

FROM WEST SIDE HOSPITAL AND DISPENSARY RECORDS.

CASE No. 1.—Mrs. B., age 52. Multipara. Admitted Gynæcological Ward, June 14, 1922.

Clinical History.—Profuse, purulent excoriating, leucorrhœal discharges for years (necessitating the constant wearing of a serviette),

vertical headache, backache, pains in groin, and general malaise.

Examination.—External genitalia and inner aspect of thighs, presented an erythematous and eroded appearance, with scattered pustular eruptions, due to the more or less constant contact of vaginal discharges.

Vaginal walls were freely bathed in discharges, irritated, reddened and swollen.

The cervix presented moderate bilateral lacerations, gaping os, projecting mucous plug, and extensive erosions.

Bimanual mobilizations of uterus, in all directions, painful. Inflammatory exudates present in both broad ligaments and tenderness at base of urinary bladder.

Chemical operation June 15, 1922, in accordance with the technique described.

Subsequent Details.—Within one week all discharges had ceased, and the erythema and eruptions on the external genitalia, as well as on the inner aspect of the thighs, had disappeared. By the end of the month the cervix was healed and appeared perfectly healthy. The pelvic soreness and inflammatory exudates were rapidly disappearing as were the symptoms and conditions set down in the clinical history.

Examined January 25, 1923, the parts were still in a normal condition, the lacerations being negative in so far as any symptoms were in evidence. Mrs. B. says that there has been no further sign of any discharge, nor return of any of her symptoms, and that she considers herself perfectly well.

Remarks.—From such an extreme case as this, to the mildest type, all leading to the operating table, there are, of course, all degrees of severity, but when one considers what was accomplished in the case of Mrs. B. the conviction is inevitable that all these cases would respond in similar manner, the more rapidly, the milder the case. This has been fully borne out in my experience with this method. All infection being removed, the disease cannot continue.

CASE No. 2.—Mrs. A., age 27. Sterile nullipara. Married six years. Admitted to Gynæcological Ward, June 1, 1922.

Clinical History.—Fairly profuse leucorrhœal discharge for years, at first slight and watery, later thick, stringy and yellowish, staining the clothing. Menstruations irregular and more or less painful. Never feels well now, as when a girl. Nothing to worry about; her husband is a good provider, and her housework is light. Her sterility is a source of disappointment, and her physical condition annoys her. Besides this she has occasional backaches, digestive disturbances, nervousness and constipation.

Examination.—Cervix enlarged 50 per cent. The mouth of the womb would admit a lead pen-

cil, and is plugged with thick, tenacious, yellowish mucus, very difficult of removal. The uterus is normal in contour, size and position. There is some thickening and tenderness of the broad ligaments and tubes, and pain upon bimanual mobilization of the uterus.

Chemical operation June 2, 1922, technique as above.

Subsequent Details.—The patient slept comfortably all night and ate a good breakfast in the morning, after which she went to her home. She kept up the cleansing douches three times a day, throughout. There was no more discharge from the day of operation. Two days after the operation this patient resumed her usual work as milliner, without the least discomfort or ill result. She reported at the clinic every fourth day for observation merely, as there was no indication for additional treatment. The mucosa sloughed away and left a perfectly smooth and healthy cervical canal. Her pelvic symptoms and soreness rapidly disappeared.

Examined December 5, 1922, the woman was found to be pregnant, and in the best of health.

Remarks.—Quite a large proportion of cases of sterility in women is caused by obstruction of the cervical canal with the thick, tenaceous mucus exuding from the diseased surface, which chokes the highway over which the fertilizing germ must pass. The obvious treatment in these cases is to remove the obstruction by curing the disease, as in the case above cited.

CASE No. 3.—Miss G. F., waitress, age 20. Admitted to Gynecological Ward, September 10, 1922.

Clinical History.—Neisserian infection two years ago. Acute symptoms subsides in about three weeks. Since then incessant and profuse purulent vaginal discharge, resistant to all forms of local treatment, including strong astringent douches. Menstruation is regular, but painful. Complains of soreness in the lower abdomen and gastralgia. Has obstinate constipation.

Examination.—External genitals covered with vaginal discharges. Vaginal mucosa reddened, irritable and bathed in abundant secretion coming from the cervix. Cervix 25 per cent enlarged, macerated and eroded. Lips of os everted and canal admits a No. 20 French. Profuse ichorous discharge from cervix. Right and left salpingitis. Considerable bilateral parametrial tenderness and thickening. Trigone of bladder somewhat tender.

Chemical operation, September 12, 1922. Technique as above outlined.

Subsequent Details.—The patient went to her home that night, slept finely until morning, went about her usual household duties that day, and on the next resumed her duties as waitress, without any inconvenience whatever. The discharge

ceased at once; the chemicalized cervix rapidly "cleaned house" and by the end of three weeks was so nearly normal that it would require an expert to detect that an operation had been performed.

Examined January 24, 1923, the cervix was normal and without discharge. There was still a slight tenderness of the Fallopian tubes at the junction of the uterine cornuæ. Otherwise the pelvic organs were normal. Menstruation was regular, and only slightly painful on the first day.

Remarks.—This case is typical of a very large class of chronic leucorrhœics, having their origin in acute gonorrhœa. They are dangerous not only to themselves, but also to the stratum of society in which they move; dangerous to themselves in that they are rushing, headlong toward the operating table, for capital pelvic mutilizations, without being aware of it, and dangerous often as disseminators of a still highly infectious disease, without themselves being aware that they are so still infected.

CASE No. 4.—Mrs. M., age 44, housewife. Multipara. Admitted to Gynecological Ward, December 15, 1921.

Clinical History.—Last childbirth three years ago, complicated with puerperal fever. Since then has had a constant and abundant vaginal discharge, staining her linen yellowish-green. Has a sense of weight in her pelvis, as if something was going to fall out. Complains of great weakness, and gastro-intestinal disturbances. Has pain in the top of her head and much backache.

Examination.—Vulva bathed in vaginal discharges. Left lateral perineal laceration. Vagina relaxed and flabby. Cervix deeply lacerated to the left, lips everted and eroded. Purulent, stringy mucus in canal. Bimanual palpation of the uterus discloses a 50 per cent enlargement, with relaxation of the broad and round ligaments, and retroversion in the first degree.

Chemical operation December 17th, as in other cases, combined with trachelorrhapy.

Subsequent Details.—This woman went to her home the following morning. She had had a refreshing night's rest, and felt much as usual. She enjoyed her breakfast. She was instructed to go about her household duties as before, and attend strictly to the douching, three times daily, and to present herself for observation on every fourth day. No medicines were given throughout, except a drachm of sodium sulphate, every morning, in a glass of hot water. The discharge quickly ceased; the coapted lips of the cervical tear healed kindly; stitches were removed on the twenty-first day; the sense of weight rapidly subsided, and the gastro-intestinal disturbances gradually lessened. By the end of the month

the patient said she felt well and wouldn't have anything more done.

Examined December 10, 1922, the uterus was normal in size and shape, and held up well in position; the cervix was free from any manifestation of a cervical affection; its normal contour had been restored, and the woman was well, with the exception of the lacerated perineum which was not serious enough to give symptoms.

Remarks.—The keynote of the case was infection, left over from her child-bed fever. Neither the tear in the cervix, nor the one in her perineum were doing any harm; it was the infection, and so that was the thing to remove, and incidentally the cervix could be repaired at the same time. These done, the patient could go home on the next day. The perineum was to be left for future repair, when the patient could afford to spend two weeks in the hospital. But moderate perineal lacerations do not cause prolapse, however much of an inconvenience they may be, and they are not a cause of infection.

CASE NO. 5.—Mrs. W., sales clerk, age 35. Nullipara. Married ten years. Admitted to Gynæcological Ward, January 12, 1921.

Clinical History.—Seven abortions, four accidental, three self-induced. For years troubled with ichorous, acrid, odorous, leucorrhoeal discharge, staining her linen yellowish-green. No recollection of acute gonorrhoeal but of frequent abortion infections. Has suffered severely from lumbo-sacral backache and pains in the lower abdomen. Has frequent attacks of gastralgia, constipation, and flatulency. Face drawn, sallow and pallid. Appears undernourished and toxic. Complains of dyspareunia, insomnia and general weakness.

Examination.—Cervix enlarged 50 per cent and markedly ischaemic. Os tincae one cm. in diameter and relaxed. Opaque yellowish discharge therefrom. Angry-looking, bluish-red rim surrounding it. Bimanual palpation discloses considerable pelvic exudates, limiting uterine mobility. Fallopian tubes thickened throughout their extent, and painful to pressure, but no abscess. The uterine sound registered three inches.

Chemical operation performed January 12, 1921. Twilight narcosis carried to the surgical stage worked like a charm. Dilatation was easily effected, and the uterine cavity explored with a blunt curette to make sure that no fragments of retained tissues were present. Chemicalization of the diseased mucosa was accomplished and the patient taken back to bed; and slept comfortably until morning.

Subsequent Details.—After a hearty breakfast Mrs. W. returned to her home. The following day she resumed her work as sales clerk without inconvenience. She followed out strictly the de-

tails of aseptic douchings as per our directions, and had no difficulty at all. The discharges ceased almost immediately, the chemicalized cervical mucosa sloughed away; involution and reconstruction proceeded rapidly, and the pelvic masses softened and melted away so that within a month the condition nearly approached the normal. The infection eradicated, nature could be depended upon to restore the parts.

Examined January 5, 1922, the pelvic organs were found to be in a normal condition and without recurrence of the leucorrhoea which led her to the clinic the year before. Improvement in her general condition was equally apparent.

Remarks.—The infection in this case was a mixed infection, due to her abortions. Infections of the cervical glands that produce chronic leucorrhoeas are of at least six different varieties, caused by at least six different infectious germs, namely: colon bacilli, saprophytic of putrescent tissues, staphylococcic, streptococcic and mixed infections, and lastly, gonococcic.

CASE NO. 6.—Mrs. Y., age 26, married four years. Admitted to Gynæcological Ward, March 5, 1921.

Clinical History.—Six months after marriage first noticed thin, watery vaginal discharge. This discharge gradually increased in quantity and became opaque and stringy. Consulted physician, who treated with ichthyol tampons and astringent douches for three months with some improvement. Two months later, condition was worse than before the treatment, the discharge being thickened, yellowish and more profuse. Consulted a specialist in diseases of women. Underwent another course of tampons, including local applications and hot water douches. Three months later was discharged much improved. Two months later the condition bad as before, with pelvic pain added. Another course of treatment at the hands of a second specialist, who finally advised uterine curettage, which was done. Considerable improvement followed this procedure which lasted for three months, when the discharge rapidly became worse again. Discouraged, the patient went along for about a year without treatment, the discharge becoming more profuse, and staining the linen. Lumbo-sacral backache, pelvic discomfort, and gastro-intestinal disturbances supervened, making life miserable.

Examination.—Cervix enlarged, congested, cystic, os uteri dilated, and patulous, the cervical canal being plugged with thick, tenacious yellow mucus. Parametrium and Fallopian tubes thickened and tender. Uterus slightly enlarged, but not tender.

Chemical operation was performed on March 6, 1921.

Subsequent Details.—Discharges rapidly ceased, pelvic soreness gradually diminished, backache passed off, and the gastro-intestinal condition

progressively improved. Within one week the change in the woman's morale and tone was marked, and she went on to complete recovery.

Examined February 6, 1923, the cervix and pelvic organs were found to have remained in a normal condition, the woman declaring herself perfectly well.

Remarks.—This case is a fair and striking example of the futility of the routine tampon local applications and douche treatment as a cure for chronic cervical endometritis. Infective germs are not thus to be eradicated; unless they are, the disease will continue, traveling up into the pelvis, by way of the cervical lymphatics, and involving the ligaments, tubes and ovaries, thus leading up to the extensive mutilating operations so common at the present day. This operation performed before irreparable pelvic damage has been done, will result in more or less complete regression to normal of the affected tissues and organs.

Discussion.

DR. FRANCIS W. SOVAK: I have visited Cuvelier's clinic and have seen cases treated by a method similar to that described by Dr. Strobell. I have seen them use a sodium hydroxid and lime pencil, which they forced into the cervix and up to the internal os. I brought some of these sodium hydroxid and lime pencils back with me and tried them on twenty cases at Bellevue Hospital. Three days after the treatment the patients complained of profuse hemorrhage, and on the day following the treatment they complained of severe pain. For three days after treatment they complained of pain due to an adnexal condition.

DR. STROBELL, in closing: I am at a loss to know just why pain and hemorrhage followed in the cases cited by Dr. Sovak, unless it was due to lack of familiarity and experience with the chemicals, coupled with non-conformity to well-known surgical principles. Also I am very far from advocating the use of fused soda and lime, as I have had no experience with it. Certainly in my own work there has been no instance of either operative or postoperative pain or hemorrhage from the use of caustic potash, according to this technique, in the approximately one hundred and eleven cases thus far completed.

I think it absolutely essential to dilate the cervix as preliminary to the application of the caustic. Free dilatation affords ready access to both cervical and uterine canals; it facilitates exploration, drainage and control, and obviates postoperative muscular spasm. Cervical dilatation enables me to see each step of the operation and to assure myself that the potassic hydroxide crayon does not penetrate to the internal os nor enter the uterine cavity.

I have definitely worked out the length of time contacts of the chemical and the diseased mucosa,

which are five, four and two seconds, respectively and consecutively, to the exact degree of destruction of the diseased tissues.

Those who have received this treatment have not complained of untoward sequellæ, and invariably return to their accustomed duties in the home, office, or workshop on either the day following operation, or the next thereafter.

Personally, my experience with this operation is that it is simple, safe and one hundred per cent effective in the treatment of this disease, and if generally employed would lessen the need of intra-abdominal mutilations fully 50 per cent.

The formation of scar tissue is not a part of the operation. The technique has been particularly developed to obviate such a misfortune. Muscularis is not to be cauterized, and scar tissue could only result from unskilled application of the method. Dilatation facilitates ample access and control. Familiarity with the "drive" of the chemical is the keynote of success. The operation does not in the least interfere with future childbirth; it restores the uterine canal to normal, and cures sterility due to cervical catarrh. The operation has not interfered with subsequent childbirth.

CERTAIN CRITERIA OF MANAGEMENT IN PROSTATIC CARCINOMA.*†

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and
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OF the present day problems in Urology, the one concerning an earlier diagnosis and a more satisfactory handling of malignant conditions in the lower urinary tract, stands foremost in our minds. Convincing strides in the accuracy of diagnosis, and highly encouraging therapeutic advances have been made in many of the commoner urologic lesions, but this is not true as yet as regards cancer of the prostate gland.

With the importance of this subject in mind, it behooves those of us engaged in this work to review from time to time our methods of procedure, in this way encouraging and stimulating constructive criticism which enables us to carry on with a saneness supported by wide discussion. Within the last few months reports by Young¹, Deming,² Bumpus,³ Barringer⁴ and Herbst⁵ have all spoken most encouragingly of the benefits derived from radium in certain types of cases. In nearly all instances when dealing with prostatic carcinoma, two phases of the subject are of paramount importance, namely, the relief of the symptoms of frequency, pain and dysuria, and

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† From the New York Institute for the Study of Malignant Disease.

possibly retention, and too, the control of the cancer with its slowly debilitating systemic effects. Of these, the former, I believe, is of the greatest importance, for without due regard for grave complications, an infection or a back pressure renal insufficiency may cause death while the local growth is well controlled, and metastases are not recognizable.

At an institution where the clinical material is of a diverse character, the cases may more readily be studied by classification into certain groups. This is advantageous in discussing the methods employed and the results obtained. The criteria of this division should be very definitely and accurately established, for upon this depends in a considerable measure the methods of procedure.

In our study of the cases of prostatic cancer we have arranged our material in five well defined groups, which we will briefly enumerate, following each with an outline of its therapeutic or operative management.

Group 1.—Very early and also moderately well developed carcinoma which give few and sometimes no local symptoms, these at the most being not greatly disturbing and present only limited obstructive signs. Cases of this type are very often met with when an individual seeks a general examination from his physician, or when he is studied in a clinic, where he receives a thorough investigation from the several diagnostic angles. Another opportunity of recognizing so grave a condition thus early is when a temporary irritation (either congestive or less commonly infective in the form of a cystitis with pus and organisms present) sends a man to his physician for relief of the acute irritation in the bladder of a few days' duration. At such a time a rectal examination casts suspicion upon the character of the unexpected prostatic enlargement, and further investigation reveals the undoubted condition of malignancy. The rectal examination in this class of case usually shows a prostate considerably larger than normal in size, with one or several areas of stony induration, and possibly a prominent nodule or two. In the more advanced cases the bases and middle thirds of the vesicles may be involved, usually on one side but maybe on both. There are rarely any palpable glands per rectum, and the corded lymphatics over and beyond the seminal vesicles indicative of extended involvement are absent, while the induration between the vesicles and the accentuation of the notch above the prostate is not very marked. Cystoscopically the findings are not markedly pathological. There may be no residual urine, and hardly ever more than 60-70 cc. The bladder capacity is usually 300-450 cc. with no pus or organisms in the bladder urine. There is often some encroachment upon the vesical orifice from lateral lobe enlargement and practically always some increase in size of the

middle portion of the prostate at the apex of the trigone, but any appreciable trigonal enlargement and subsequent elevation is very slight if present at all. Clinical and laboratory evidence of metastases is lacking in this group of cases.

The procedure of choice in this group is evidently one to check the malignant growth, to cause its recession if possible, and at least defer for as long a time as possible the onset of permanently disturbing local symptoms and the more insidious toxic debility. Special attention to the local function is not demanded at this time, for no disturbing disfunction is present. The method we have employed with this object in view has been, first, the implantation of bare seeds of radium emanation into the substance of the prostate gland through the perineum. This is best done with the patient in the lithotomy position, then with a gloved finger in the rectum, the skin of the perineum, the subcutaneous tissue and the prostate gland itself is infiltrated with about 20 cc. of a solution of one-half of one per cent novocain. After five minutes, with a finger in the rectum as a guide a trocar is inserted through the perineum up to the prostate gland, the obturator is then removed and 10-12-15 seeds of radium emanation are planted into the substance of the prostate gland by means of long hollow needles containing at their ends the radium seed, these being inserted through the hollow trocar. Without removing the trocar, the seeds of radium emanation each containing .6-1 millicules are permanently left within the substance of the gland itself, being deposited within the posterior, middle and lateral lobes and seminal vesicles and in the inter-vesicular induration when present. With continued care and with the finger in the rectum as a guide these seeds may similarly be placed within the substance of the trigone itself and by the additional guide of a sound in the urethra (held by an assistant) they may be also deposited in the higher portions of the lateral lobes and even in the anterior portion immediately beneath the symphysis. A total of 1,000 to 2,000 mc. hours of radium emanation is thus permanently left within the substance of the prostate gland and its adnexa. Following this procedure there is practically no discomfort beyond a little smarting on voiding and slightly increased frequency, which symptoms subside in a few hours or a few days. No retention, hemorrhage, abscess or infection has occurred following this procedure. One or two days after this process of implantation, the patient is given his treatment of high-power X-Ray. This consists of the application of the rays through two or three portals of entry, depending upon the thickness of the individual. The suprapubic, sacral and perineal regions are the ones usually selected. The dose is accurately calculated by measuring the thickness and the contour of the patient. Thus fields are selected

through which, according to their size and distance of the tube, it is possible to administer from 90-100 per cent of the erythema dose to the diseased area (prostate gland). Following this treatment the patient is allowed to return home in two or three days and reports for monthly observations. In from three, six to nine months the deep therapy treatments either in whole or part may be repeated as indicated by the clinical state of the patient.

This is the type of case for which at the present time the outlook is most hopeful. Our experience indicates that a period of freedom of symptoms may continue for several years under proper therapeutic supervision.

Group 2.—Early and also moderately well developed carcinoma which give marked subjective symptoms (*i.e.*, frequency, dysuria, or retention), with little or no evidence of any generalized debility and with no demonstrable metastases.

This group differs from the preceding almost entirely in the matter of the preponderance of subjective symptoms. The objective findings may be only slightly increased. The rectal examination usually shows a prostate with a little more induration and with some increase in the fixedness of the gland. Cystoscopically, however, there is always greater encroachment upon the vesical orifice within the bladder. This at times is accompanied by some elevation of the lower third of the trigone, a finding recently mentioned by Herbst, which is often very striking. Consequently from these changes a larger amount of residual urine is found and on the whole a bladder of smaller capacity. The problem in this group is quite different from the preceding. First, there must be a symptomatic relief, and after that measures to retain a functional well being for as long a time as possible, which means the retarding of a local recurrence, and the deferring of any systemic debility.

In this group a more extended procedure is necessary. It is our custom in this type of case to treat the patient with the radium pack in large doses, in several areas, namely, suprapubic, right groin, left groin, sacral and perineal. These treatments are of about five to ten thousand millicurie hours each and usually total about 30,000 millicurie hours. More recently we have been using the deep X-Ray because with the measured dose now available, the duration of the treatment is shortened. In three to four weeks this procedure is repeated. These steps in the therapy are administered as preliminary measures to diminish the viability of the cancer cells previous to operation. After the second radiation or sometimes after even a third, with many of the most annoying symptoms still persisting, *i.e.*, retention or frequency from a large residual urine or from irritation and infection, a prostatectomy is carried out through the perineum.

This is done with but few modifications according to the method of Young, which permits of the removal of an adequate amount of obstructing tissue to give functional relief, and the patient is restored to normal urination without any dependency upon suprapubic drainage. At the conclusion of the removal of the obstructing tissue the posterior capsule or commissure, the region of the lateral lobes, anterior commissure, and also the periprostatic tissue is planted with the bare seeds of radium emanation each containing about .6-1. millicurie each. They are placed in the above structures about three-quarters of one cm. apart. These seeds are placed with a definite attempt at accuracy under satisfactory operative exposure. After this the wound is closed in layers. In about three months, further external radiation by either the high-power X-Ray or the radium pack is carried out. Following this the patient returns for observation from intervals of from one to three months.

Group 3.—In this division are placed cases previously operated upon elsewhere which come presenting obstructive symptoms due to a cicatricial or a thin carcinomatous ring like contracture at the vesical orifice. Often these cases present no clinical or X-Ray evidence of metastases and show no or only slight evidence of debility. Per rectum the prostate is much smaller with less of a rectal bulging than in the preceding groups. Sometimes the size is not much greater than normal. However, the contour always presents marked changes from the normal or the hypertrophied gland. There is marked lateral extension, with the posterior lobe or commissure practically intact, the median furrow obliterated and an induration of stony hardness throughout the tissue about the vesical neck. Cystoscopically there can be demonstrated in this group a definite fibrous or carcinomatous bridge-like elevation at the apex of the trigone, which may be extensive enough to in certain cases involve the vesical orifice well up along its lateral aspects. Associated with this obstruction there is a varying amount of residual urine and usually an appreciable bladder contracture.

Our procedure here is again first an effort to give symptomatic relief. This is done by performing under novocain anæsthesia a punch operation as devised by Young. This procedure is carried out entirely through the urethra and removes one and usually several pieces of tissue, impinging on the prostatic orifice. By this step we have given immeasurable symptomatic relief by giving more nearly normal function as to frequency and dysuria. In addition, radium seeds are planted in the substance of the posterior lobe through the perineum, as outlined in Group 1. and the external treatment by radium packs or high-power X-Ray over the groins, suprapubic region, sacrum and perineum is also carried out

in an effort to retard the local growth and to diminish metastases.

Group 4.—Previously operated cases with marked obstructive symptoms, *i.e.*, dysuria, frequency and sometimes retention due to a return of the prostatic growth. These individuals usually show considerable general debility, and very often demonstrable metastases. Here the rectal examination reveals marked carcinomatous infiltration, involving usually the seminal vesicles, under surface of the trigone, and the entire prostatic area. Through the cystoscope is seen marked encroachment on the vesical orifice and what is particularly suggestive, an extensive elevation of the entire trigone and interureteric ligament. The treatment here is palliative and the relief of suffering is paramount. A local removal and restoration of function is impossible, and we feel that a suprapubic cystotomy with a permanent drainage tube in place is the procedure of choice. Seeding through the perineum and external packs and high-power X-Ray supplement the operative relief. It is our feeling that the latter measures relieve somewhat the backache and radiating pains down the legs. We have seen patients given most satisfactory relief from this step and never to our knowledge have they been made permanently worse.

Group 5.—Markedly advanced cases (having had no operation) but with severe obstructive symptoms, and often with retention. These always present marked debility and unquestioned metastases. This group offers practically nothing except a varying degree of palliation. It is a group which offers almost no opportunity for study, but from a humanitarian standpoint, they receive our best judgment for relief of symptoms. This means a suprapubic cystotomy for the relief of painful urinary symptoms, and radium by the packs or the high-power X-Ray for such relief as may be obtained for the back pains. With the relief of back pressure on the kidneys by the cystotomy and the ample drinking of fluids, also the lessening of the backache and thus giving them some nights of uninterrupted sleep, a service is rendered these individuals which makes their remaining months less harrowing.

In this somewhat superficial résumé of an all important subject, an attempt is made to record the routine of our present day management. From it there are several facts that stand out.

1. Gratifying results can only be expected with an earlier diagnosis.

2. Radium or Deep X-Ray, possibly both, appear to have a place in the therapy of all cases of Prostatic Carcinoma.

3. Surgery is also indicated in the management of many cases and should be used after and in associations with radiation.

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THE TREATMENT OF SYPHILIS IN THE DANNEMORA STATE HOSPITAL—PRELIMINARY REPORT.*

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THE following treatment is given without the reasons for its various phases, though no point has been arrived at arbitrarily. For every piece of technique or apparent lack of it, there is a definite reason, and the method given has been accepted only after many others have had a thorough trial.

Nothing original is claimed for this treatment. I have simply assembled what, to my mind, are the best of the many methods of others and added a few of my own. One source of information is the U. S. Army, and other sources are the British and French, with that of various practitioners in this country.

The treatment outlined is primarily that of secondary syphilis and is supplemental to the enclosed chart. The chart is more or less arbitrary, it frequently being necessary for the operator to make allowance for the personal idiosyncracies of the patient, varying toxicity of the various brands of drugs, and other factors.

TECHNIQUE.

Before beginning the treatment complete serological work is done, including on the blood, red, white and differential examination and Wasserman; and on the spinal fluid, cell count, Wasserman, colloidal gold, globulin and pressure estimation. The patient is weighed stripped. A complete physical examination is made. Three forms of medication are used, nearsphenamine intravenously, mercury salicylate in mineral oil intramuscularly, and K. I. internally. The dosage of nearsphenamine is started at .007 grams per kilo of body weight.

MERCURY MEDICATION.

Mercury salicylate is given at five-day intervals, 1 cc. of the solution containing .065 gm.

* This treatment was instituted in this institution in September, 1919, and it has been made possible to so institute it and carry it through only through the constant co-operation and aggressiveness of my superintendent, Dr. John R. Ross

of mercury. This mercury suspension is given intramuscularly in alternate buttocks in the superficial gluteal muscles, at five-day intervals. A Record syringe of 1 cc. capacity, fitted with an 18-gauge 1½ needle is used. Prior to the injection the buttock is painted with iodine, U.S.P., and after the injection a sterile bit covers the site and is held on by adhesive.

NEOARSPHENAMINE.

The neoarsphenamine tubes are inserted in alcohol for one-half hour before their use. They are then removed one at a time and opened as needed.

EQUIPMENT.

Freshly double-distilled water, three all-glass Luer syringes of 5 cc. capacity, three 21 gauge 1½ inch needles (special point), a glass pus basin and a fine glass stirring rod.

NEOARSPHENAMINE ADMINISTRATION.

The stirring rod, syringes, needles and a medicine glass are boiled in distilled water, over an

electric grill and are then placed in the sterile basin. Cool, freshly double-distilled water is placed in the sterile medicine glass. Four cc. of this water is withdrawn into a syringe which has been allowed to cool, and this water is then put into an opened tube of neoarsphenamine. An assistant stirs this solution with the glass stirring rod until it is dissolved. The solution is then taken up again into the syringe directly from the ampule and injected into the median basilic vein, the needle, bevel cut, being inserted at the side of the vein. On entering the lumen of the vessel slight traction on the plunger withdraws blood into the syringe. The actual injection should take about two minutes. During injection the vessels of the arm are compressed by an assistant, the patient holding the hand rigidly closed. The site of injection is covered with a sterile bit and the patient immediately put to bed, without a pillow and without waiting to undress. The patient fasts for five hours before this injection and afterwards for two hours, at which time an egg-nog is given.

SYPHILIS.

Day of Treatment	Year	Month	Day	"914" Indicated	"914" Given	"606" Given	Cyan. of Hg. Given	Grey Oil Indicated	Grey Oil Given	S. S. K. I. M. Given T. I. D.	Ward	Other Med.
(1st Course)												
1	0.45	....	....	....	0.10	....	10		
8	0.60	....	....	....	0.10	....	18		
1575	....	....	....	0.10	....	25		
2290	....	....	....	0.10	....	32		
2990	....	....	....	0.10	....		
Rest for thirty days. Then repeat. Take Wasserman.												
(2nd Course)												
59	0.45	....	....	....	0.10	....	10		
66	0.60	....	....	....	0.10	....	18		
73	0.75	....	....	....	0.10	....	25		
8090	....	....	....	0.10	....	32		
8790	....	....	....	0.10	....		
Rest for two and one-half months. Take Wasserman.												
(3rd Course)												
164	0.45	....	....	....	0.10	....	10		
171	0.60	....	....	....	0.10	....	18		
178	0.75	....	....	....	0.10	....	25		
18590	....	....	....	0.10	....	32		
19290	....	....	....	0.10	....		
Rest for three months. Take Wasserman.												
(4th Course)												
285	0.45	....	....	....	0.10	....	10		
292	0.60	....	....	....	0.10	....	18		
29975	....	....	....	0.10	....	25		
30690	....	....	....	0.10	....	32		
31390	....	....	....	0.10	....		

Rest four months. Take Wasserman. Lumbar puncture with complete serological examination of spinal fluid. If both are negative, give no treatment. If either or both are positive, begin treatment again with Course II. At any rate, rest four months and take Wasserman. If positive start again with II. If negative Wasserman and complete serological in five months more.

Nearsphenamine is given at seven-day intervals in four courses, each course consisting of five treatments. Mercury is given simultaneously with the "Neo," beginning six injections before. Mercury is, of course, discontinued on the first signs of mercurialism. It will thus be seen that about thirty-four mercurial injections are usually given and twenty of nearsphenamine. K. I. is given at the beginning, starting with five minims of the saturated solution t.i.d. and going up to the point of tolerance or thirty minims per day.

Each course of treatment is followed by a rest period as shown; the first one being one month; the second one two and one-half months; the third one three months; the fourth one four months. Each of the first three rest periods is followed by a Wasserman of the blood, and the last rest period is followed by a complete serological, as indicated on the chart. In many cases we also do serological work on the spinal fluid at other periods.

In General Paralysis, spinal drainage is usually done, at intervals of about a week, each drainage being immediately preceded by a dose of nearsphenamine intravenously. All of the spinal fluid that will flow by gravity is removed. For several hours following this treatment the patient is not allowed to sit up and receives no food.

A weight chart, blood pressure chart, and a chart of clinical notes, are kept in connection with this treatment sheet.

A comparison of brands of nearsphenamine is being recorded, but this comparison will not now be given. With this technique as outlined we have had no reactions whatsoever. We have had no abscesses, thromboses nor ill effects from mercurialization and our improvements have been gratifying.

The operator uses three assistants when giving treatments and gives "Neo" at the rate of two and one-half minutes per patient and one-half minute per patient for the mercury.

Deaths.

- BIGGS, HERMANN M., New York City; Bellevue Medical College, 1883; Fellow American Medical Association; National Tuberculosis Association; Member State Society; Academy of Medicine; Alumni Bellevue Hospital; Consulting Physician Bellevue, Woman's, St. Vincent, Willard Parker and Riverside Hospitals; Director of the first Municipal Bacteriological Laboratory ever established; New York State Health Commissioner, 1914 until his death. Died June 28, 1923.
- BODENBENDER, NELSON W., Buffalo; Homeopathic College, Cleveland, 1887; Member State Society; Buffalo Academy of Medicine; Physician Deaconess Hospital. Died May 26, 1923.
- BROUGHTON, WILLIAM R., New York City; College of Physicians and Surgeons of New York, 1890; Fellow American Medical Association; Fellow American College of Surgeons; Member State Society; Academy of Medicine; Consulting Ophthalmologist Mountinside Hospital and Children's Home, Montclair. Died June 18, 1923.
- CORNELIUS, LA WILLA MOTT, Brooklyn; Bellevue Medical College, 1891; Member State Society; Consulting Physician Swedish Home for Old People. Died June 3, 1923.
- FOSKETT, EBEN, New York City; New York University, 1895; Fellow American Medical Association; Fellow American College of Surgeons; Member State Society; Alumni Bellevue Hospital; New York Obstetrical Society; Attending Gynecologist Booth Memorial Hospital. Died June 14, 1923.
- HEATH, MABEL FLOOD, Elmira; University of Buffalo, 1911; Member State Society; Elmira Academy of Medicine. Died April 26, 1923.
- HEAZLIT, LEDRA, Auburn; University of Pennsylvania, 1897; Fellow American Medical Association; Fellow American College of Surgeons; Member State Society; Auburn Academy of Medicine; Surgeon City Hospital. Died May 2, 1923.
- HOXSIE, EDWARD HAZARD, Brooklyn; College of Physicians and Surgeons of New York, 1884; Member State Society; Attending Physician Bushwick Hospital. Died May 7, 1923.
- LEVY, DAVID HEINE, New York City; College of Physicians and Surgeons of New York, 1901; Fellow American Medical Association; Member State Society; Attending Surgeon Hospital for Joint Diseases. Died May 22, 1923.
- PURDY, HARRY R., New York City; Bellevue Medical College, 1890; Fellow American Medical Association; Member State Society; Academy of Medicine. Died June 18, 1923.
- SCHAEFER ERNEST L., Brooklyn; Long Island College Hospital, 1912; Fellow American Medical Association; Fellow American College of Surgeons; Surgical Society; Member State Society; Assistant Surgeon Wyckoff Heights Hospital. Died July 2, 1923.
- SMITH, FREDERICK WILLIAM, New York City; Syracuse University, 1903; Fellow American Medical Association; Fellow American College of Surgeons; American Urological Society; Member State Society; Academy of Medicine; New York Urological Society; Urologist St. Bartholomew's Hospital; Consulting Urologist North Westchester, Mt. Kisco and New Jersey State Hospitals. Died May 24, 1923.
- TAYLOR, HENRY LING, New York City; College of Physicians and Surgeons of New York, 1881; Fellow American College of Surgeons; Past President and Member American Orthopedic Association; Academy of Medicine; Attending Surgeon Hospital for Ruptured and Crippled; Consulting Orthopedic Surgeon Mountinside Hospital, Montclair. Died June 9, 1923.
- WORDEN, HIRAM K., Westmoreland; Albany Medical College, 1874; Fellow American Medical Association; Member State Society. Died May 20, 1923.

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THE SAN FRANCISCO MEETING.

Thirty-seven hundred and sixty-five members of the American Medical Association were fortunate enough to attend the meeting in San Francisco, during the last week of June, and learned many lessons in hospitality warmly tempered with thorough preparation and intelligent execution.

The Civic Auditorium, covering an entire city block, and handsomely housing all of the meetings of delegates, committees, scientific sessions and commercial exhibits, should be carefully studied. Every large town should possess a civic center competent to care for organization meetings. A city should not only furnish markets and distribution facilities for its tributary country but should be materially equipped to entertain visitors and traders without embarrassment or limitations to its cordiality.

San Francisco breathed the spirit of hospitality through all of her alert boosting citizens. Six thousand persons listened to the forward looking address of President Wilbur, and a continuous line of people were received by him from nine to midnight at his reception at the Fairmount Hotel.

All San Francisco physicians seemed to be members of the reception committee and entertained most liberally at their hotels, clubs, homes and hospitals.

We had a wonderful time and we are still a little dizzy. N. B. V. E.

VOLSTEAD LIMIT DECLARED UNCONSTITUTIONAL.

If there ever was an issue upon which all physicians should eagerly unite (unfortunately a rare act for physicians) it is the present grave and significant issue of refusing to allow any interference with the right of the physician to exercise his own judgment under his license to practice medicine, in prescribing drugs to relieve his patients.

The Volstead Act, the enabling act which makes operative the prohibition amendment to the Federal Constitution, contains this provision: "Not more than a pint of spirituous liquor shall be prescribed for use by the same person within any period of ten days, and no prescription shall be filled more than once."

Any thoughtful person, not blinded by fanaticism, realizes that this provision dictates to the physician unlawfully; that is, the Congressman who voted for this act, who has no scientific knowledge of disease or of remedies, undertakes to decide how much of such a remedy shall be given in illnesses of which he has no information, substituting his general guess, or whim, or fanatical fervor, or frightened acquiescence, for the accurate knowledge of the bedside practitioner. Could anything be more improper, more absurd, more Podsnapian? Surely, a dangerous usurpation.

The proponents of this legislation, intoxicated with partly misdirected zeal, claim that many physicians prescribe alcoholics in reality for beverage purposes. If they know of such instances, let them denounce such offenders to the proper authorities. But they have no right to attempt to effect the prevention of such instances by limiting the judgment or powers of all other practitioners of the healing art.

Adopting this view—the only logical and reasonable one—and after years of unexampled patience, a body of physicians united under the presidency of Dr. Samuel W. Lambert, of New York City, to test the constitutionality of the provisions of the Volstead Act which limit the amount of spirituous liquor which physicians may prescribe for their patients.

Action, begun in February, 1921, resulted in a decision handed down on May 9, 1923, by Hon. John C. Knox, a Judge of the United States District Court, holding that the provisions named are unconstitutional, and enjoining, *pendente lite*, Acting Federal Prohibition Director Edward C. Yellowley; David H. Blair, Commissioner of Internal Revenue; and William Hayward, United States Attorney, from interference with medical practitioners in their prescription of alcoholic remedies in kind or amount for their patients.

His Honor's words are as follows: "The limitations of the Volstead Act, and its amendments, which make it lawful to prescribe but one pint of intoxicating liquor for the internal and medicinal use of a person whose known ailment, if it is properly to be treated, requires the administration of a greater quantity, are void."

Thus the power of legislative bodies to interfere, by enactment of law, with therapeutic prescription, has been adjudged unconstitutional.

This triumph of the right has been achieved only after protracted legal procedures, and is a matter of great value to every practitioner. It can be made permanent only through the concerted action of the members of our profession; for an appeal will doubtless be made by the Prohibition Director to the higher Federal courts.

All interested physicians (and who is not?) should immediately join the Association for the Protection of Constitutional Right, as an endorsement of its principles and its endeavor, by contributing to its funds from one dollar to twenty-five dollars. The Secretary is Dr. Warren Coleman, 58 West 55th Street, New York, and the Treasurer, to whom cheques should be sent, is Dr. Frederic E. Sondern, 20 West 55th Street, New York.

A. W. F.

THE PHYSICIAN'S DUTY TO REMOTE PATIENTS.

A recent discussion, between the Governor of our State, Health Commissioner Biggs, Deputy Commissioner Nicoll, and many physicians from all parts of the State, brought out the fact of

inadequate medical care for certain ill people in remote localities.

Many questions arose, of much interest. One topic discussed leads to a consideration of the question of how far a physician is obligated by duty or conscience to treat the remote patient, difficult of access.

If a farmer acts the rôle of the pioneer, goes out into a distant spot and establishes a family there, is it incumbent upon some physician to follow him out into the wilderness for the sake of taking medical care of his family? Is it also incumbent upon some clergyman to move out into the fastness and provide spiritual sustenance? Should not a school teacher, a librarian and a movie director also follow Mr. Pioneer out into the wilds?

Or, if a locality is deserted by a goodly number of its inhabitants, shall a struggling physician remain and embrace poverty, rather than take his family to a spot where he can support its members properly?

It was the reasonable consensus of opinion among the physicians, though not openly expressed to any extent at that meeting, that people should be rapidly educated to bringing their sick to the nearest hospital, where a physician can care for six to ten people adequately in the time it would take him to make one call—for a fee that is unjust to his own family—in a remote locality.

To be efficient, alert, up-to-date, tireless and cheerful, a country physician must be regarded as possessing human rights, human needs, and human limitations, in spite of his having espoused a profession that demands unremitting service and devotion.

A. W. F.

AN OUTRAGEOUS FEDERAL TAX LEVIED UPON PHYSICIANS ALREADY DULY QUALIFIED.

In our May, 1923, issue we called attention to a special method of taking money from the pockets of physicians entirely qualified and licensed under their several State laws to practice medicine, by which method the Federal Government, under the terms of the "Harrison Narcotic Law," nullifies in part the said State license, by demanding a special annual tax of three dollars upon each physician who dispenses a narcotic drug in the course of his practice.

In the case of a criminal, intent is considered in law, and this determines in large part the charge of the Judge and the finding of the jury. But in the case of our colleague, Dr. Frederic Bierhoff, his intent and endeavor count for nothing and he is obliged to pay the tax twice and a fine in addition. Attention is invited to his letter in the correspondence column.

Are people protected from drug addiction by such treatment of a perfectly reputable physician?

A. W. F.

Correspondence

The Council, at a meeting held in Albany, April 20, 1922, moved, seconded and carried:

That the Journal be not used in any way suppress any expression of opinion; and that its correspondence columns be open for all proper communications; and that "proper" communications will be deemed those which are not slanderous or libelous in their nature.

MEDICAL ALCOHOLICS.

Herkimer, N. Y., May 20, 1923.

Editor of the NEW YORK STATE JOURNAL OF MEDICINE:

DEAR DOCTOR: I am not surprised that Dr. Zwisohn uses and recommends the use of alcoholics in treating people who have sickness. Perhaps they wish alcoholics, too. I should like to take up in detail all the various statements that he has made in his two letters in regard to alcohol and its use and in regard to what he says that I have stated about these matters, but such a communication would require more space in this journal than would perhaps be willingly accorded to any communication. A point that must be made is that his discussion is not adhering to scientifically pertinent matters; but it is refreshing to observe that Dr. Zwisohn admits that he is not infallible. Nor is anyone else, and for that very reason it behooves us all as medical men to ascertain and to use scientific facts in our practice. This is no easy matter for it requires the acquisition of an immense amount of information which must be analyzed and classified, in order that the best may be accepted and applied and that the less useful may be discarded with perspicacious judgment.

Dr. Zwisohn says in his January letter that I inquire "on what authority" alcohol is considered to be a desirable medicine, but if he will look carefully at my letter of December he will find that I ask "on what proven scientific grounds you consider alcoholics to be in any cases the most desirable medicines." It should be evident to any medical student or any school boy that there is a vast difference between the *authority*, that is, the opinion of some human being, and the *grounds*, that is, the basic existing facts on which certain conclusions and practices are constructed: And on the strength of this obvious error of comprehension he asserts with gusto that the doctor who is in attendance on a case is the sole judge of what treatment that case should have and he supposes that I disagree with him on that point but, of course, I agree with that statement of the case. For the patient, this limitation of responsibility is the most regrettable thing in the whole situation! Necessarily, the attending physician is the sole judge, because he can use, not the store of information and judgment that is in the head of others, but only the store of information and judgment that is in his own head! And, since that is the case, it behooves us all to obtain as full a store of information as possible and to use the best judgment we can in applying that information.

Apparently Dr. Zwisohn is not aware that whiskey was omitted from the last edition of the pharmacopœia. That deletion certainly indicates what is the best judgment of some able professional men, for they do not consider that whiskey has even enough medicinal properties to justify its inclusion, and that judgment certainly implies that they consider that whiskey can never be preferred as a medicine to other substances. I wonder whether Dr. Zwisohn would class the revisers of the pharmacopœia with quacks and charlatans of all sorts.

Dr. Zwisohn asserts that the A. M. A. polled the medical profession and that the majority of the doctors gave the verdict that alcohol is of great value as a therapeutic agent. Supposing that that statement could stand at its apparent face value, what would be the value of it? That statement would then merely indicate the *opinion* of a majority of doctors, but would not necessarily represent the *actuality*, the real facts existing in actual sick individuals, for it has happened

through all history that clinical observation has often not correctly assessed the value of a form of treatment. However, let us see what was the real vote obtained by the *Journal of the American Medical Association*. In the issue of January 21, 1922, page 210 and 218, there is a summary of the returns. As to whether whisky is a necessary therapeutic agent 30,843 doctors voted, 15,625 affirmative and 15,218 negative, or 50.6597 per cent affirmative and 49.34 per cent negative (not fully 51 per cent and 49 per cent as stated in the *Journal*). As to whether wine is a necessary therapeutic agent, 9,803 or 32 per cent, voted affirmative, and 20,648, or 68 per cent, voted negative. As to whether beer is a necessary therapeutic agent, 7,934, or 26 per cent, voted affirmative, and 22,663, or 74 per cent, voted negative. So that so far as a voting majority is concerned on a scientific question, a considerable majority already does not consider beer and wine to be necessary therapeutic agents and a very bare majority still considers whisky to be a necessary therapeutic agent. As stated on pp. 216-7 of the *Journal*, 58 per cent of those voting on the point consider that physicians should be restricted in prescribing whiskey, wine, and beer, and 42 per cent consider that there should be no restrictions.

For the majority of his influenza patients Dr. Zwisohn thinks that whisky or brandy was best. Likewise, many doctors think that purging with calomel and salts and loading with coal tar products to reduce fever and headache are best for their patients! No wonder that patients are sick under such treatment! Which is the worse, the disease or the treatment in such instances? If Dr. Zwisohn will search the literature on the subject he will find that researches into the treatment of various fevers have shown that alcohol is of no value in them. Belief in the value of alcohol in cases of fever is one thing, and actual existence of value is quite another: belief in the efficacy of *all* quackery is one thing and the actual existence of value in them is quite another; and until many medical practitioners become more scientific there will continue to be less difference between the average medical practice and out-and-out quackery than there should be. Unscientific practice, not the most approved and most advanced practice, is "giving aid and comfort to the enemies of scientific medicine."

The use of alcohol, by the way, is not the only flagrant instance of ignorance and quackery in the practice of medicine, as indicated by the multitudinous people treated on the humbug diagnoses of "intestinal autointoxication," "bilious attacks," and "uric acid diathesis"! Indeed, let medical science continue to advance and not cling to all sorts of absurdities having their origin in the imagination of unscientific enthusiasts and followed for years, or centuries, or ages by throngs of unscientific, unthinking, uninformed medical men. It is an easy matter for some medical men to fold their arms with consummate egotism and then hand out to their sick and confident patients diagnoses and treatment that have nothing or but little that is scientific in them, and this form of practice seems to satisfy most people, provided there are enough jolly, unintelligible words and mysticism added to camouflage the whole thing. Yes, indeed, let more medical men have more regard for scientific truth and seek it with hard study and deep thought and use it for the advancement of scientific medicine and its distinction from quackery. Dr. Zwisohn has accused me and other prohibition supporters of being quacks and for this reason I have said what I have, and what I have said is the absolute truth. Medical science is, as I have often said before, still a babe, a gigantic babe, but that babe, like all babes, cannot properly be brought up on alcohol or other unscientific things. Indeed, science has been busy devising means to protect babes from the presence and the products of micro-organisms, and one of the products of micro-organisms from which babes and adults alike should be protected is alcohol. I do believe that much

of the advancement of the human race has been and will be due to the science of medicine, and one of the greatest advances that medical science itself and the State of New York and the United States and the world can make is to get rid of alcohol as a medicine and beverage, for it is not an antidote to the poisons of micro-organisms but is itself their poisonous product. This cry about encroachment on personal liberties is *utterly childish* in every aspect. The fact that many medical men are prescribing alcoholics as medicine, and even as actual booze, is one of the greatest mistakes ever committed in the name of science, for it not only gives to the people the supposed sanction of the medical profession to the use of the poisonous stuff, but also promotes the necessarily consequent ill health, unhappiness, crime, and financial stringency, and violates a constitutional amendment and laws which are the result of long growing knowledge of what is best not only in times of war but also in times of peace.

Now, I wish to end with the statement with which I began these letters: Alcoholics are never the best remedies in truly scientific medicine. I have not said that they have no action, but I asked in my first letter that a supporter of alcoholics state, according to certain questions that I presented, exactly on what actions of the stuff he bases his claims for its therapeutic value. In all the discussion that followed, this evidence has not been advanced and since on these points rests all appropriate discussion I must decline to reply to further unscientific and erroneous statements, but I shall be willing to follow the line indicated.

Yours for the advancement of medical science and the health of the world,

GEORGE E. BARNES, B.A., M.D.

May 15, 1923.

The Editor, NEW YORK STATE JOURNAL OF MEDICINE:

I think Dr. A. W. Ferris' editorial, "An Outrageous Tax on Physicians," in this month's issue, both timely and pertinent.

Let me give you my own experience with the outrageous method in which it is sometimes carried out. Early in June, 1921, I left the city, to be gone until September, for a vacation, and with no intention of engaging in the practice of medicine during this period. I was to spend several weeks in the woods, remote from post office, attorneys, etc., and before leaving asked my assistant to draw up an inventory of all narcotic drugs in my office, and to send me this, with an application blank, for a renewal of my narcotic license, on receipt of word from me. On reaching civilization—but remote from an attorney—I received the necessary papers, and was able to arrange matters so that the application and inventory, properly attested, and accompanied by the necessary fee, were sent to the proper authorities during the *second week of July*. Not having received the license by the beginning of September, I traced the money order, and found that it had been paid, within a few days after having been sent. I thereupon wrote to the Collector of Internal Revenue, in this city, but received neither license nor even acknowledgment of my letter. After a second, and sharper, letter sent on September 15, 1921, I finally received the license, "for the fiscal year 1922."

On December 5, 1921, I received a demand from the Collector of Internal Revenue for this District for \$3.75, three dollars being a demand for a *second payment of the tax*, and seventy-five cents being further penalty; all of the sum being assessed as a *punishment for my not having paid the tax* before July 1st.

I answered, protesting against the course the Narcotic Bureau was taking in the matter, and refused to pay the tax, on the ground that it had already been paid.

On January 28, 1922, I received another demand for the sum of \$3.75, which I again refused to pay, basing

this refusal, this time, upon the fact that, upon telephonic inquiry of the Narcotic Bureau in this city, I was informed by one of the officials there that, in his opinion, I had paid in sufficient time, under the circumstances.

No attention was paid to my written protests and explanations, and no acknowledgment whatever was sent me; but on May 5, 1922, two United States Deputy Marshals marched into my office, with a *warrant for distraint, and prepared to make a seizure* for the amount of \$4.05. Upon the advice of my attorney I paid the amount under protest, and wrote a letter protesting against the procedure to the Collector of Internal Revenue for this district. This time I got an answer, enclosing a form, requesting a refund of the sum paid.

This I did, and the matter remained in abeyance until February 9, 1923, when I received a letter under date of February 8th from the Commissioner of Internal Revenue, denying my request for a refund, on the following grounds (quoted *verbatim*): "From the information at hand, it appears that, although you were not practicing from June 16th to September 1, 1922, you had narcotic drugs in your possession. Therefore you should have registered on or before July 1, 1922, and the fact that you were out of the city is not considered a reasonable excuse for delinquency. Accordingly, your claim is hereby rejected for the amount involved, \$4.05."

That's how they treat reputable practitioners—a generous attitude!

Very truly yours,

FREDERIC BIERHOFF, M.D.

155 West 58th Street, New York City.

NEW YORK COMMITTEE OF THE AMERICAN SOCIETY FOR THE CONTROL OF CANCER, INC.

(UP-STATE DISTRICT)

May 31, 1923.

Editor of the NEW YORK STATE JOURNAL OF MEDICINE:

DEAR DOCTOR: At its meeting in 1921, the House of Delegates of the Medical Society of the State of New York adopted a resolution approving the purposes of the American Society for the Control of Cancer, and asking the members of the Society throughout the State to support the activities of the State Committee of the latter organization. It seems proper to report to the Medical Society of the State of New York the results obtained by the New York Committee of the American Society for the Control of Cancer.

Cancer Week was held in New York State as a part of a nation-wide campaign in 1921 and in 1922. So far as reports are obtainable the following figures indicate the activities of those working under the supervision of the State Committee.

	1921	1922
Number of articles and editorials in newspapers	100	106
Number of motion picture theatres co-operating	5	23
Number of lectures given.....	143	152
Number of persons reached by lecturers.....	20,000	100,000
Number of radio talks.....	0	5
Number of cancer clinics.....	0	6

The Society is represented in every district of the State, corresponding to the District Branches of the Medical Society of the State of New York, by a District Committee; and every county in the State except three has a county committee. In addition there are numerous local committees.

JOHN M. SWAN, Chairman.

NOTES FROM THE STATE DEPT. OF HEALTH.

THE NEED OF PHYSICIANS TO CARRY FORWARD THE PUBLIC HEALTH MOVEMENT.

In a recent address before the National Conference of Social Work in Washington Dr. Hermann M. Biggs, State Commissioner of Health, again urged the need of periodic physical examinations. "It is, I believe," said Dr. Biggs, "now the opinion of the most competent public health authorities that an annual or biannual general physical examination of every member of the community made by experienced and qualified physicians, with subsequent instructions as to a proper mode of life and the correction of physical defects and the treatment of diseased conditions or abnormalities found, will contribute more to the future reduction of our morbidity and our mortality rates and to the prolongation of life than any other single medical or public health procedure or activity."

After discussing health instruction in the schools, the effects of increasing devotion to sports and outdoor life, popular health education through the newspapers, and other factors making for still further reduction of the death rate and for progressive increase in the expectation of life, the Commissioner added: "One serious handicap to the accomplishment of these ends in the future, to my judgment, will be the lack of a sufficient number of well-trained and qualified physicians and public health workers, and their proper distribution. Under present conditions in many districts in the United States the number is now totally inadequate, and the ratio of physicians to population is slowly decreasing. The number of physicians who die or retire each year is greater than those who are annually licensed to practice medicine, and this difference will gradually increase, while at the same time the population of the United States is increasing at the rate of about 1,500,000 annually. The increase of population alone requires at least 1,200 more physicians annually to properly provide for its medical care."

COMMUNICABLE DISEASES THIS YEAR.

The following table shows the prevalence of and the deaths from some of the more important communicable diseases in New York State exclusive of New York City for the first four months of 1923 as compared with the same period last year and with the average for the corresponding months of the preceding five years:

	Cases		Average		Deaths		Average	
	1923	1922	1918-22	1923	1922	1918-22	1923	1922
Typhoid Fever	263	315	363	51	51	59		
Measles	16,383	6,238	14,158	143	68	146		
Scarlet Fever	5,595	4,987	3,995	70	117	93		
Whooping Cough	5,069	2,920	4,161	132	83	136		
Diphtheria	2,049	3,035	3,094	166	244	274		
Smallpox	184	14	171	0	0	0		

It will be noted that the number of deaths from typhoid fever to April 30th this year is exactly equal to that for the corresponding period of 1922, and not a great deal less than that for the five year average, despite a very considerable decrease in the number of cases. A very low fatality rate for scarlet fever is perhaps the most remarkable feature of the communicable disease statistics of the year. For the past three years the fatality rate for scarlet fever has been quite a little higher than for the four preceding years (with the exception of 1918) and it is gratifying to observe this decline. Measles and whooping cough are excessively prevalent this year, but their fatality rates remain low. The encouraging decrease in diphtheria cases and deaths continues, evidencing the value of the Schick test and specific immunization.

TYPHOID CARRIERS BIDE THEIR TIME.

Daudet told a classic story of the mule that kept its kick for seven years. Typhoid carriers are far more patient. Another of the many instances of cases arising over a long series of years from a single individual came to light recently in a report regarding one of the carriers under observation in the western part of the State. This woman had typhoid in 1900. At the time of her illness her daughter took care of her and contracted the disease. One year later another daughter and a stepson living at home with her developed typhoid fever. The next year another single case occurred, her son who lived at home coming down with the disease. In the course of the three years following her mother's illness a third daughter also living in the home was added to the list of cases. After an interval of four years a son-in-law had typhoid. No further cases can be traced to this carrier until eight years later when a neighbor who occasionally bought milk which had been handled by the carrier, contracted the disease. After another interval of six years an outbreak of six cases, also traceable to the milk, occurred in the family of another neighbor. The small number of cases among users of the milk can be attributed to the fact that only one or two cows were kept by the carrier and that only a few quarts were sold now and then to neighbors.

PEDIATRIC CLINICS.

Two clinics have recently been held at the request of county medical societies by regional consultants in pediatrics of the Division of Maternity, Infancy, and Child Hygiene. At the request of the Herkimer County Medical Society, Dr. H. L. K. Shaw of Albany conducted a pediatric clinic on April 21 at Little Falls. There were ten physicians and six nurses present. Dr. Shaw was unable to take care of all the cases which were brought, but examined about six children. Dr. Newton, President of the Society, reports that the physicians were very much interested and requests were made for more clinics of the same sort.

Upon the request of the Cattaraugus County Medical Society, Dr. DeWitt H. Sherman of Buffalo conducted a pediatric clinic in Salamanca on April 24, and examined four patients. About twenty-five physicians were present and Dr. Sherman reports that they were very co-operative and expressed a desire for further clinics. The clinic preceded the regular meeting of the County Medical Society, at which both Dr. Sherman and Dr. F. C. Goldsborough spoke on the maternity and child welfare work of the Department.

A DEATH "AFTER" BUT NOT "BECAUSE" OF THE SCHICK TEST.

The old fallacy of "post hoc ergo propter hoc," seems to run a particularly virulent course in many discussions of the problems of medicine and the prevention of disease. At a recent meeting of the board of health in Hudson when the subject of Schick testing was being considered the city clerk reported that she knew of a child in Mamaroneck who had died a few days after receiving the test. This was urged as a reason why the work should not be approved in Hudson. Correspondence with the hospital at New Rochelle where the child died and with the health officer of Mamaroneck brought out the following facts: The Schick test was made on this child on February 16, and proved to be negative so that no toxin-antitoxin was administered. On February 27, the child was sent home from school with an earache and two or three days later was sent to the hospital at New Rochelle where an operation for acute mastoiditis was performed. The child died on March 16, the cause of death given as meningitis, streptococcus hemolyticus, contributory acute mastoiditis.

PRUNES.

Contributions Invited

"I'd like to take out some insurance."
 "Fire or life?"
 "Both. I have a wooden leg."

"I dinna feel verra gran' th' day, Mary. Mix me a guid stiff glass o' whusky an' make he tak' it, whether I want or no!"—*London Opinion*.

"You say he is a modern baby?"
 "In every sense of the word."
 "For instance?"
 "He was nurtured in an incubator and lulled to sleep with a radio lullaby."—*Florida Times-Union*.

The Unkindest Cut.

Author: "Why did you leave the theatre last night before the play was finished?"
 Friend: "I am not responsible for that. I'm a sleep-walker!"—*Kasper (Stockholm)*.

Some Optimist.

An Irish construction foreman suffered the loss of a hand by the premature explosion of a blast, and as he stood holding the bleeding stump the gang crowded around were profuse in their expressions of sympathy.
 "Whist, lads," consoled the injured one, "'Tisn't as bad as it might be. Suppose I had had me pay in me hand?"

The Doctor.

When with stress your eyes are blinking,
 And your heart with fear is shrinking,
 Call in Doctor Cheerful Thinking.

He's the head of his profession,
 Leader of the whole procession,
 Curing trouble and depression.

Gives you medicines beguiling—
 Hope and faith on courage piling,
 Mixed with sympathetic smiling.

Tonic thoughts and sunny notions,
 Pills of fancy, mirthful potions,
 Soothing all the soul's commotions.

Good old Doctor Cheerful Thinking!
 He's the chap when hearts are sinking,
 And with tears your eyes are blinking.

—*John Kendrick Bangs*.

A business associate of Thomas A. Edison had occasion to interview an elderly man who is deaf and rather sensitive about it. When they began to talk the deaf man indicated his infirmity by cupping his hand at his ear for a moment, but the caller failed to observe the sign and much of his talk was wasted. A friend who accompanied him tried in vain to impart the idea with a nudge or a whisper, and when they had left he explained the situation.

"Well," said the man from New Jersey, "the only other deaf man I know is Mr. Edison, and when anyone starts talking to him he says, 'Dammit, yell! I'm deaf!'"

Sonnet to My Restaurant.

The quality of mercy is not strained
 Into the soups of campus eating joints,
 And frequently the cabbage disappoints
 Because its head, quite clearly, has been brained;
 The "soup" recalls to mind that it has rained;
 The Amazonian maid my beef anoints
 With greasy gravy, and the tough meat points
 To mortal combat ere one taste is gained.

And every day I dine within this hole
 Whose odor smells to heaven with pollution,
 And every day my inner working wrecks;
 But though it rust the cogwheels of my soul
 And violate my whole darn constitution,
 I'll go there still—for there they cash my checks.
 —*Pennsylvania Punch Bowl*.

In Three Generations.

Teacher: "Jimmie, define and give an example of heredity."
 Jimmie: "It means that—that—that if your grandfather didn't have no children your father wouldn't have none neither—and neither would you."—*Nashville Tennessean*.

A Standard Size for Shoes.

The doctor on his round of golf was crossing the field with his small Negro caddie, when the latter opened the conversation with, "Doctor, ain't you got some shoes up yonder in yo' locker you don't want? I needs some bad." "Maybe so," said the doctor. "What size do you wear?" "I dunno, suh, 'cause I ain't never bought none dat-er-way—I either kin git in 'em, or I cain't."

Candid Friend: "No, I don't think he will be an artist, but I should say he'd make a magnificent author."
 Proud Father: "By jove, old man! D' you really think so?"
 "Yes, he's got grand ears to stick a pen behind!"—*Passing Show (London)*.

Gasoline Arithmetic.

(All for Charity)

One cent increase, per gallon, makes one library.
 Two cents increase makes one hospital.
 Three cents increase makes one church.
 Four cents increase makes one research laboratory.
 Five cents increase makes one foundation.

There was a new physician in Kansas City, says John Nicholas Beffel, who had practiced in seven Ohio communities and who claimed to have attended the President's brother-in-law during a siege of speckled pneumonia. He prided himself on his unerring diagnosis of all ills.

On a slow day an elderly man with a benevolent-looking beard hobbled up two flights of stairs to the medic's office, and asked for treatment. He had rheumatism in his right leg, he explained.

Having put the patient through a fast five-minute examination, the doctor nodded wisely and said:

"Sure, I know what's the matter with you. It's old age."

"Old age! Not a bit of it!" exclaimed the sick man. "Why, my left leg's just as old as my right one. If it was old age, I'd have rheumatism in both of 'em!"

MEETING OF THE COUNCIL.

A meeting of the Council of the Medical Society of the State of New York was held in New York City on Thursday, May 24, 1923; Dr. Orrin Sage Wightman, President, Dr. Edward Livingston Hunt, Secretary.

The meeting was called to order at 11.15 A.M. and on roll call the following answered to their names: Drs. Orrin Sage Wightman, E. Eliot Harris, Charles O. Boswell, Edward Livingston Hunt, Seth M. Milliken, Arthur W. Booth, Edward C. Rushmore, Arthur J. Bedell, Charles C. Trembley, John M. Quirk, Harry R. Trick, Andrew MacFarlane, James N. Vander Veer, Henry Lyle Winter, Joshua M. Van Cott and George W. Whiteside, Counsel.

A quorum being present, Dr. Wightman announced the meeting open for business.

Moved and seconded that the reading of the minutes of the previous meeting be dispensed with. Carried.

Dr. Vander Veer, Chairman of the Committee on Legislation, requested that he be granted an appropriation of \$7,000.00 for the work of his Committee for the ensuing year.

Moved and seconded that Dr. Vander Veer be granted this appropriation. Carried.

Dr. Vander Veer, Chairman of the Committee on Legislation asked for the privilege of waiting until a later date to present the names of his committee.

Dr. Vander Veer also requested that he be allowed the privilege of appointing an advisory committee of five, in addition to the regular committee.

Moved and seconded that Dr. Vander Veer's request be granted. Carried.

Dr. Winter, Chairman of the Committee on Medical Economics, requested that he be granted an appropriation of \$1,200 for the work of his Committee for the ensuing year.

Moved and seconded that Dr. Winter be granted this appropriation. Carried.

Dr. Van Cott, Chairman of the Committee on Public Health and Medical Education, requested that he be granted an appropriation of \$1,200 for the work of his Committee for the ensuing year.

Moved and seconded that Dr. Van Cott be granted this appropriation. Carried.

Dr. MacFarlane, Chairman of the Committee on Scientific Work, requested that a small appropriation be granted for the work of his Committee for the ensuing year.

Moved and seconded that Dr. MacFarlane be granted an appropriation of \$25. Carried.

Moved and seconded that the Council request Dr. Van Etten to serve in the capacity of full Editor of the New York State Journal of Medicine for the coming year. Carried.

Moved and seconded that Dr. Van Etten be authorized to select his Associate Editors. Carried.

The President nominated the following as members of the Executive Committee: Drs. E. Eliot Harris, Arthur W. Booth, Edward C. Rushmore, Joshua M. Van Cott and George M. Fisher.

Moved and seconded that they be elected. Carried.

Moved that a note be sent to the Chairman of the Committee on Arrangements expressing the deep appreciation of the Council for the admirable way in which the recent annual meeting had been conducted. Seconded and carried.

Moved and seconded that the method of sending out the referendum on the Principles of Professional Conduct be referred to the Executive Committee. Carried.

EDWARD LIVINGSTON HUNT, *Secretary.*

MEETING OF THE COUNCIL.

A meeting of the Council of the Medical Society of the State of New York was held at the State Society rooms, 17 West 43d Street, on Tuesday afternoon, June 5, 1923. Dr. Orrin Sage Wightman, President; Dr. Edward Livingston Hunt, Secretary.

The meeting was called to order by the President at 3 P. M., and on roll call the following answered to their names: Drs. Orrin Sage Wightman, Edward Livingston Hunt, E. Eliot Harris, Joshua M. Van Cott, Andrew MacFarlane, Charles O. Boswell, Edward C. Rushmore, James N. Vander Veer, Arthur W. Booth and George W. Whiteside, Counsel.

A quorum being present the President announced the meeting open for business.

Moved and seconded that the reading of the minutes of the previous meeting be dispensed with. Carried.

The Secretary presented the following tentative Budget which had been approved by the Executive Committee of the Council:

TENTATIVE BUDGET, JUNE 1, 1923, TO JUNE 1, 1924.
Cash Balance, June 1, 1923..... \$13,933.00

RECEIPTS.	
Dues, 1923, about.....	\$30,000.00
Dues, 1924, about.....	18,000.00
Journal advertisements and sales...	11,000.00
Directory advertisements and sales.	7,000.00
Interest on bank deposits.....	700.00
Clerical work	200.00
	66,900.00
	\$80,833.00

EXPENSES.	
Rent	\$1,600.00
Counsel, including \$1,200 for Attorney and \$1,000 for Contingent Fund	14,200.00
Auditor	300.00
Journal Printing, commissions, wrappers, etc., 12 issues.....	16,000.00
Journal Postage, 12 issues.....	1,100.00
Directory Printing, delivery, postage, commissions	11,000.00
Committee on Public Health	1,200.00
Committee on Legislation	7,000.00
Committee on Medical Economics.	1,200.00
Traveling Expenses, general.....	1,200.00
Traveling Expenses, Delegates American Medical Association...	2,239.00
Salaries, including Directory and Journal and Editor's Honorarium	11,000.00
Referendum Vote, Principles of Professional Conduct, Postage and Envelopes...\$467.00	
10,000 Reprints	140.00
	607.00
Honorarium, Secretary	500.00
Annual Meeting, about	1,200.00
Telephone	200.00
Stationery and Printing.....	900.00
Incidentals, including typewriter, inspection, water, ice, towels, telegrams, carfares, express, general office supplies, insurance, etc.	500.00
New Typewriter	100.00
General Postage	350.00
District Branches	600.00
	\$72,996.00

SUMMARY.	
Cash Balance, June 1, 1923.....	\$13,933.00
Receipts, June 1, 1923 to 1924.....	66,900.00
	\$80,833.00
Less expense to June 1, 1924.....	72,996.00
	\$7,837.00

Tentative Balance

Moved and seconded that it be approved. Carried.

Moved and seconded that the member of the Committee on Scientific Work to be appointed by the President be nominated by Dr. MacFarlane and the name sent to the President. Carried.

Dr. Van Cott, Chairman of the Committee on Public Health and Medical Education, presented the following as members of his committee for the ensuing year: Drs. Edward C. Podvin, Bronx; William H. Runcie, Freeport; Charles A. Bentz, Buffalo; Joseph Leslie Moore, Brooklyn; Frederick W. Sears, Syracuse; Leo H. Neuman, Albany; Samuel J. Kopetzky, New York.

Moved and seconded that they be elected. Carried.

A telephone message was received from Dr. Winter, Chairman of the Committee on Medical Economics, stating that he would be unable to attend the meeting and requesting that the Council elect the following members of his Committee for the coming year: Drs. J. Richard Kevin, Brooklyn; E. MacD. Stanton, Schenectady; George W. Kosmak, New York; William H. Purdy, Mt. Vernon.

Moved and seconded that they be elected. Carried.

Dr. MacFarlane, Chairman of the Committee on Scientific Work, presented an outline of his plans for the coming year.

Moved and seconded that the outline presented by Dr. MacFarlane be approved. Carried.

Dr. MacFarlane also stated that there would be an appropriation needed to carry out his plans.

Moved and seconded that the appropriation for the Committee on Scientific Work be left to the Executive Committee with power. Carried.

Moved and seconded that the President be authorized to confer with the Committee on Scientific Work and to act on behalf of the Council, with power. Carried.

Dr. Vander Veer, Chairman of the Committee on Legislation, presented the following as members of his Committee for the coming year: Drs. Frank D. Jennings, Brooklyn; George R. Critchlow, Buffalo.

Moved and seconded that they be elected. Carried.

Dr. Vander Veer moved that the Advisory Committee of the Committee on Legislation be increased to ten members. Seconded and carried.

Dr. Vander Veer presented the following as members of the Advisory Committee: Drs. Daniel S. Dougherty and George B. Stanwix, from the First District Branch; Drs. Arthur David Jaques and Frank Overton, from the Second District Branch; Dr. James F. Rooney, Third District; Dr. William B. Hanbidge, Fourth District; Dr. James F. McCaw, Fifth District; Dr. John M. Quirk, Sixth District; Dr. Homer J. Knickerbocker, Seventh District; Dr. William Warren Britt, Eighth District.

Moved and seconded that they be approved. Carried.

Letters were read by the Secretary from Dr. Kopetzky and Dr. Phillips in regard to the action taken by the House of Delegates on the Report of Reference Committee A.

Moved and seconded that Dr. Phillips and Dr. Kopetzky be sent a copy of the following resolution passed by the Executive Committee of the Council: Carried.

Resolved, That the Report of Reference Committee "A" adopted by the House of Delegates at the meeting on May 21, 1923, be printed in the New York State Journal of Medicine under a separate and distinct heading, in addition to its appearance in the minutes of the meeting.

Moved and seconded that the following committee be appointed to decide the date and manner of sending out the Referendum on the Principles of Professional Conduct: Drs. E. Eliot Harris, Joshua M. Van Cott, Orrin Sage Wightman, Mr. George W. Whiteside. Carried.

Moved and seconded that the following resolution passed by the House of Delegates be referred to the Committee on Public Health and Medical Education to report back to the Executive Committee of the Council. Carried.

Whereas, The public are being imposed upon and public health seriously endangered by the practice of the healing art by the unqualified, and by the use of methods and procedures having no scientific justification or therapeutic value; therefore be it

Resolved, That the Council investigate these abuses and take effective measures for the protection of the same and the protection of the public health.

Dr. Vander Veer presented an estimate from the Argus Press for printing the New York State Journal of Medicine.

Moved and seconded that it be received and placed on file. Carried.

Dr. Wightman presented a general outline of his ideas in regard to improving the New York State Journal of Medicine.

Moved and seconded that the subject be referred to the Executive Committee with power. Carried.

Moved and seconded that the President be given full power to decide on the place of the next annual meeting. Carried.

Moved and seconded that if a vacancy occurs in the delegates to the American Medical Association, that the President and Secretary be authorized to fill it with one of the alternates. Carried.

There being no further business the meeting adjourned at 3.45 P. M.

EDWARD LIVINGSTON HUNT,
Secretary.

County Societies

MEDICAL SOCIETY OF JEFFERSON COUNTY.

REGULAR MEETING, MAY 10, 1923, AT WATERTOWN.

The meeting was called to order at the Black River Valley Club. Four new members were elected.

The principal business consisted in the report of the Committee on High Maternal and Infant Mortality rate with suggestions for lowering same. This Committee presented a resolution to the effect that our County Society carry on a program with the assistance of the State Department of Health to improve the care of mothers and babies in this county and recommended that the Society use their influence with the Board of Supervisors to obtain their financial support for such a project. This resolution was passed, and the Board of Supervisors met with the result that they have promised their assistance.

Following an adjournment for dinner, the scientific program was presented:

"High Infant Mortality, Causes and Prevention," Roger H. Dennett, M.D., Professor of Pediatrics, New York Post Graduate Medical School, New York City. Discussion opened by Norman L. Hawkins, M.D., Watertown.

"State Plan for Infant and Maternal Care," Florence L. McKay, M.D., Director New York State Division of Maternity, Infancy and Child Hygiene, Albany.

CLINTON COUNTY MEDICAL SOCIETY

SEMI-ANNUAL MEETING, MAY 15, 1923, AT PLATTSBURGH.

"On motion duly seconded and carried the President appointed a committee to discuss ways and means of organizing a central health committee for the County and to report thereon at the annual meeting.

SCIENTIFIC PROGRAM.

"Iletin in Diabetes," C. H. Beecher, M.D., Burlington, Vt. (By invitation).

"Gastro-intestinal Syphilis," Leo F. Schiff, M.D., Plattsburgh.

MEDICAL SOCIETY OF THE COUNTY OF WASHINGTON

SEMI-ANNUAL MEETING, MAY 8, 1923 AT HARTFORD.

Owing to lack of quorum no meeting was held in the forenoon.

The meeting was called to order at 2 p. m. by the Vice President.

Minutes read and approved.

The following members were present, Drs. Paris, Lee, Banker, Park, Prescott, Stillman, Tenney and Davies. Visitors: Drs. Edsall D. B. Elliott, Glens Falls, and Huntington Williams, Albany.

The Treasurer reported 16 members in arrears, and an available fund of \$76.22 in treasury.

The name of Dr. W. S. Bennett of Granville was presented for membership on motion duly seconded and carried, he was declared elected.

The Vice-President presented an address on a case of malignant endocarditis, giving a very interesting history and a partial autopsy.

Dr. Elliott gave a brief history of a case of precocious puberty in a child four years old, and followed with a very interesting paper on Cerebral Hemorrhage in the new born, stating that it was more frequent than most physicians might think and warning against too rapid delivery in our breach cases, and urging more caution in the delivery of all difficult labors, also gave a warning against the use of paturitin. Dr. Elliott was given a vote of thanks.

Dr. Banker gave some of his earlier experiences in the treatment of diphtheria. Discussed by Drs. Tenner and Park.

Dr. Williams, State Board of Health, gave a talk on communicable diseases and the methods of control, urging physicians to aid the health officers in this matter. Dr. Williams was given a vote of thanks.

Dr. Williams also gave great credit to two of the members of the Society who were working for the State Department, namely Dr. Munson and Dr. McSorley.

Books Received

Acknowledgment of all books received will be made in this column and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interests of our readers.

DUFF HOUSE PAPERS. Edited by EDMUND I. SPRIGGS, M.D., F.R.C.P. Volume I. Illustrated, 190 figures, 6 charts, 1 colored plate. Oxford University Press. Price, \$9.50.

DISEASES OF THE GUMS AND ORAL MUCOUS MEMBRANE. By SIR KENNETH GOADBY, K.B.E., M.R.C.S., L.R.C.P., D.P.H. (Cantab). Lecturer on Bacteriology of the Mouth, Dental Department, University College Hospital. Oxford University Press. Price, \$14.00.

HELIO THERAPY. By A. ROLLIER, M.D., with collaboration of A. ROSSELET, D.Sc., M.D., H. J. SCHMID, M.D., E. AMSTAD, M.D. With forewords by SIR JOHN HENRY GAUVAIN, M.A., M.D., M.R.C.S., L.R.C.P.,

and CALEB WILLIAMS SALEEBY, M.D., F.R.S. Oxford University Press. Price, \$8.00.

DISEASES OF THE RECTUM, ANUS AND COLON. By SAMUEL GOODWIN GANT, M.D., LL.D., Chief Department Diseases of the Colon, Rectum and Anus at the Broad Street Hospital. Three octavo volumes, 1616 pages, 1128 illustrations, 1085 figures, 10 insets in colors. Phila. and London: W. B. Saunders Co., 1923. Cloth, \$25.00 net.

THE URETHRA AND THE URETHROSCOPE, A MANUAL OF PRACTICAL URETHROSCOPY. By F. CARMINOW DOBLE, M.R.C.S., L.R.C.P. (Lond.). With foreword by MAJOR A. T. FROST, O.B.E., R.A.M.C. Oxford University Press. Price, \$3.40.

WAR BLINDNESS AT ST. DUNSTAN'S. By SIR ARNOLD LAWSON, K.B.E., M.D., F.R.C.S., L.R.C.P. Oxford University Press. Price, \$2.50.

THE COLLOIDAL STATE IN ITS MEDICAL AND PHYSIOLOGICAL ASPECTS. By SIR WILLIAM M. BAYLISS, F.R.S., M.A., D.Sc., LL.D. Oxford University Press. Price, \$2.15.

SUPPLEMENTS TO VOLUMES 3, 4, 5. Oxford L. L. Medicine, 181 pages. Price, \$3.62.

A REFERENCE HANDBOOK OF THE MEDICAL SCIENCES, embracing the entire range of Scientific and Practical Medicine and Allied Science. By various writers. First and Second Editions edited by ALBERT H. BUCK, M.D. Fourth Edition, revised with numerous additions, edited by THOMAS LATHROP STEDMAN, A.M., M.D., Editor of the "Twentieth Century Practice of Medicine." Complete in Eight Volumes. William Wood & Co, New York, 1923.

HÆMATOLOGY IN GENERAL PRACTICE. By A. KNYVETT GORDON, M.B., B.C., B.A. (Cantab), Medical Superintendent of the Virological Pathological Research Laboratories. William Wood & Co., New York, 1923. Price, \$1.75 net.

AN INDEX TO GENERAL PRACTICE. By A. CAMPBELL STARK, M.B. and B.S. (Lond.), L.S.A. (Emg.), Ph.C., Exhibitor and Gold Medallist of the University of London; Gold Medallist of the Society of Apothecaries. William Wood & Co., New York, 1923. Price, \$2.00 net.

OPTOTYPES, CONSISTING OF TEST-LETTERS AND PICTOGRAPHS FOR MEASURING THE ACUTENESS OF VISION. By JOHN GREEN, M.D., LL.D., Professor Ophthalmology, St. Louis Medical College 1886, to 1913 and A. E. EWING, A.M., M.D., Professor Emeritus Ophthalmology in Washington University. Thirty-five engraved plates. C. V. Mosby Co., St. Louis, 1923.

EPIDEMIOLOGY AND PUBLIC HEALTH. A Text and Reference Book for Physicians, Medical Students and Health Workers. In three volumes By VICTOR C. VAUGHAN, M.D., LL.D., Emeritus Professor Hygiene, University of Michigan. Assisted by HENRY F. VAUGHAN, M.S., Dr. P.H. Commissioner of Health, City of Detroit and GEORGE T. PALMER, M.S., Dr. P.H. Epidemiologist, Department of Health of the City of Detroit. Vol. II. Nutritional Disorders, Alimentary Infections, Percutaneous Infections. C. V. Mosby Co., St. Louis, 1923. Price, \$9.00.

TONSILLECTOMY, BY MEANS OF THE ALVEOLAR EMINENCE OF THE MANDIBLE AND A GUILLOTINE. With a Review of the Collateral Issues, by GREENFIELD SLUDER, M.D., Clinical Professor, Director Department of Rhinology, Laryngology and Otolaryngology, Washington University School of Medicine. Ninety illustrations. C. V. Mosby Co., St. Louis. Price, \$5.00.

THE TONSILS, FAUCIAL, LINGUAL AND PHARYNGEAL. With Some Account of the Posterior and Lateral Pharyngeal Nodules. By HARRY A. BARNES, M.D., In-

structor Laryngology, Harvard Medical School; Laryngologist, Massachusetts Charitable Eye and Ear Infirmary and Massachusetts General Hospital. Illustrated. Second Edition. C. V. Mosby Co., St. Louis, 1923. Price, \$5.00.

CEREBROSPINAL FLUID, IN HEALTH AND IN DISEASE. By ABRAHAM LEVINSON, B.S., M.D., Associate in Pediatrics, Northwestern University Medical School; Attending Physician Department of Contagious Diseases, Cook County Hospital, Chicago. With a foreword by LUDWIG HEKTOEN, M.D. Sixty-nine illustrations. Five Color Plates. Second Edition, thoroughly Revised. C. V. Mosby Co., St. Louis, 1923. Price, \$5.00.

THE TUBERCULOSIS WORKER. A Handbook on Methods and Programs of Tuberculosis Work by PHILIP P. JACOBS, Ph.D., Publicity Director, National Tuberculosis Association, and Managing Editor, Journal of the Outdoor Life. By WILLIAMS & WILKINS Co., Baltimore, Maryland. 1923.

THE INTERNATIONAL MEDICAL ANNUAL. A Year Book of Treatment and Practitioner's Index. Forty-first year, 1923. WILLIAM WOOD & Co., New York. \$5.00 net.

URGENT SURGERY BY FELIX LEJARS. Third English Edition translated from the Eighth French Edition by WILLIAM S. DICKIE, F.R.C.S. and ERNEST WARD, M.A., M.D., F.R.C.S. 20 Full-page Plates. 1086 Illustrations. William Wood and Co., New York, 1923. Price, \$16.00 net.

A SIMPLE TREATMENT FOR TUBERCULOSIS. By OWEN F. PAGET, M.D., Perth, Western Australia. Introduction by J. GEORGE ADAMI, M.D., F.R.S. Prefatory Remarks by W. P. BIRMINGHAM, B.A., M.D., Hon. Surgeon, Public Hospital, Fremantle, Western Australia. William Wood & Co. 1923. Price, \$1.75.

TRANSLATION OF SELECTED PASSAGES FROM DE L'AUSCULTATION MEDIATE. (First Edition). By R. THEOPHILE H. LAENNEC, with a Biography by SIR WILLIAM HALE-WHITE, K.B.E., M.D., Consulting Physician Guy's Hospital. Medical Classics Series. William Wood and Co., New York, 1923. Price, \$3.75.

THE PATIENT'S VIEWPOINT. By PALUEL J. FLAGG, M.D. Bruce Publishing Co., Milwaukee, Wisconsin.

APPLIED PSYCHOLOGY FOR NURSES, DONALD A. LAIRD, Assistant Professor Psychology, University Wyoming. Illustrated. J. B. Lippincott Co., Phila. and London. Price, \$2.50.

INTERNAL MEDICINE. A Work for the Practicing Physician on Diagnosis and Treatment with a Complete Desk Index. In three volumes. Illustrated. 427 Text Cuts, 14 in Color. Vol. I. Medical Diagnosis in General; The Methods and Their Immediate Results; Symptoms and Signs, Tests. By JAMES C. WILSON, A.M., M.D., assisted by CREIGHTON H. TURNER, M.D. Vol. II. Medical Diagnosis: The Clinical Applications of Diagnostic Methods; The Natural History of Disease; Direct and Differential Diagnosis; Prognosis. By JAMES C. WILSON, A.M., M.D., assisted by CREIGHTON H. TURNER, M.D. Vol. III. Treatment. By JAMES C. WILSON, A.M., M.D., and SAMUEL BRADBURY, M.D. J. B. Lippincott Co., Phila. and London.

BECHAMP OR PASTEUR? A LOST CHAPTER IN THE HISTORY OF BIOLOGY. By E. DOUGLAS HUME. Founded upon MS. by MONTAGUE R. LEVERSON, M.D. (Baltimore), M.A., Ph.D. With a Foreword by S. JUDD LEWIS, D.Sc., F.I.C. Covici-McGee, Chicago. 1923.

Book Reviews

DISEASES OF THE EAR, NOSE AND THROAT, MEDICAL AND SURGICAL. By WENDELL CHRISTOPHER PHILLIPS, M.D., Professor Otolaryngology, N. Y. Post-Graduate Medical School and Hospital; Surgeon Manhattan Eye, Ear and Throat Hospital. Sixth Revised Edition. 578 Half-tones, 37 Full-page Plates. Some in Colors. F. A. Davis Co., Phila., 1922.

The book gives evidence of the extraordinary teaching ability of the author, and as a text-book it is unique. It has won a well merited place as the text-book and reference book in the majority of Medical Schools throughout the country.

There is, first of all, a very thorough handling of the fundamental subjects concerning the ear, nose and throat. The anatomy and physiology are most carefully described. The book, however, is complete, for it deals with the latest advances in diagnosis and treatment of the various affections of these organs.

It is clearly and concisely written, profusely illustrated and should be in the library of every student and practitioner of the head specialties. I. FRIESNER.

PHYSICAL DIAGNOSIS. By W. D. ROSE, M.D., Lecturer Physical Diagnosis and Associate Professor Medicine, University of Arkansas. Third Edition. Three hundred and nineteen illustrations. C. V. Mosby Co., St. Louis, Mo., 1922. Price, \$8.50.

Rose's well-known book on diagnosis has now reached its third edition, which bespeaks an excellence that appeals to a widening patronage of readers. In its scope, the book considers first the basic factors in physical diagnosis of the respiratory organs, and inspection, palpation, percussion and auscultation are taken up in turn. In the opinion of the reviewer these 204 pages are the finest in the book.

After four chapters on diseases of the respiratory organs, the physical examination of the circulatory organs is considered, and then three chapters on diseases of this system.

The concluding 201 pages are devoted to the general examination of the abdomen, head, extremities and nervous system. The usual chapters in general medical diagnosis devoted to infectious diseases, etc., are absent.

Generally speaking, this is a good dependable book. The illustrations supplied by the author are so satisfactory that it is regrettable that he or his publishers saw fit to reproduce so many from Butler's and Pottinger's works. A reviewer likes to see new illustrations. As is common, there is no illustration of funnel-breast, and the examples of emphysematous chest and phthisical thorax are so extreme as to be of no practical value to the practicing physician or the confused student: it is the lesser degrees of these chest deformities that escape recognition, and we must train ourselves to appreciate the slighter departures from normal.

The X-Ray pictures presented would be of more value if they were accompanied by interpretive legends. In passing, one is tempted to comment that in dental radiography small films are now uniformly in use. There is no mention of the accepted cardiac distance in radiography.

The textual matter is good, although occasionally a phrase not always happy creeps in: to wit, "The toxins or uremia and diabetes."

A pleasing feature of the book is the personal note gained by mentioning authors in association with methods of diagnosis. There is a tendency, expressed now and again, to drop proper names out of the literature of medicine. The reviewer regrets this, as it lessens what should be a greater interest in the men in medicine who have done things and tends to make our minds barren of appreciation of the debt that we owe our investigators and fellow-clinicians.

FRANK BETSEL CROSS.

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RECENT PROGRESS IN THE COMMUNICABLE DISEASES OF CHILDHOOD.

By CHARLES HERRMAN, M.D.,
NEW YORK CITY.

5. RUBELLA.

THIS is now universally recognized as a distinct disease; it always breeds true, that is it only causes rubella in those exposed, and an attack of measles does not protect the patient against rubella. I have seen children who contracted both of these diseases within a short time, when, as is not unusual, both were epidemic during the same season. Rubella is much less communicable than measles, probably because the catarrhal symptoms are much less pronounced. As in measles the first manifestation is a moderate rise in temperature. I have never seen Koplik spots in an undoubted case of rubella. Some years ago Forchheimer described as a characteristic manifestation an enanthema which appeared as minute bright red spots or fine points seen on the uvula and soft palate, and occasionally on the hard palate during the first 24 hours. I have not been able to find it in more than one-fourth of the cases. The enlargement of the post-auricular and occipital nodes is a valuable symptom in the early diagnosis. The differentiation from measles is based on the comparative mildness of the attack, and primarily on the absence of Koplik spots. As one would expect from the evidence of irritation of the lymphatic system, rubella in the early stage is associated with a lymphocytosis; in measles there is a leucopenia. The differential diagnosis is of importance in patients referred to the hospital; for if a patient with rubella is by mistake placed in the measles ward, he is sure to contract measles, with the result that instead of being sick for a few days, he is sick for several weeks, and a complicating bronchopneumonia may even endanger life.

6. FOURTH DISEASE (DUKES-FILATOW).

Until the infectious agent in scarlet fever is determined, its relation to the Fourth disease will remain uncertain. The Fourth disease is not common, and it is not very communicable, therefore the opportunity for studying the disease is rare. Add to this that the disease can

only be studied satisfactorily in an institution for infants and young children, where infection from the outside can be excluded, and one can appreciate the difficulties. Some years ago I was fortunate in being able to study a small epidemic in such an institution. I believe that the Fourth disease is a distinct entity. All physicians must have observed what they considered mild or doubtful cases of scarlet fever, in which aside from the eruption, almost all of the distinguishing features of scarlet fever were absent. The proof that the Fourth disease is distinct, rests on the fact that a patient may have scarlet fever and later the Fourth disease; that a patient may have the Fourth disease and later scarlet fever; that a patient may have rubella and later the Fourth disease; and the Fourth disease and later rubella. In other words each of these diseases does not immunize against the others. The Fourth disease is differentiated from scarlet fever by the longer incubation period, the absence of a rapid pulse and the absence of the characteristic changes in the throat and tongue. There is no complicating suppurative adenitis, otitis, or nephritis. The fact that cases of scarlet fever occur at the same time is not proof that the Fourth disease is simply a mild form of scarlet fever, because both diseases may be prevalent at the same season, and patients may contract both within a short time, as was observed by Dukes at Rugby. The same is true of measles and rubella, both may be prevalent at the same season, and children may contract both within a short time. That different patients should show a difference in the intensity of the manifestations of the Fourth disease is not surprising, for this is a peculiarity of all the communicable diseases, and depends on individual susceptibility and resistance.

In all cases of doubt, the patient should be isolated, but if after 48 hours the characteristic manifestations of scarlet fever, aside from the rash, are absent, it is not necessary to quarantine the patient for five weeks, as they are usually well in a few days.

Some authors consider the Fourth disease as the scarlatiniform type of rubella, basing their assumption on the fact that in an epidemic some patients present the morbilliform, some the scarlatiniform eruption. However, as already indicated, both diseases, rubella and the

Fourth disease may be prevalent at the same season. In the Fourth disease the eruption is *scarlatiniform from the beginning*, and I have never seen a patient with this disease, cause rubella in another member of the same family.

7. ROSEOLA INFANTUM.

This is now established as a distinct clinical entity. The disease occurs chiefly in infants, and begins with a moderate rise of temperature which lasts for a few days. As the temperature falls, a characteristic macular eruption appears, usually first on the buttocks and the side of the neck, which later spreads to the rest of the body, being more profuse on the trunk, and less marked on the extremities. The eruption is complete in 24 hours, and there is no desquamation or complication. The disease is but slightly communicable, possibly older children are immune. It is differentiated from rubella by the absence of enlargement of the post-auricular and occipital nodes, and the fact that the eruption appears when the temperature drops.

8. CHICKEN-POX.

This is usually such a mild disease, and is so seldom followed by serious complications, that its prevention is not so important as some of the other communicable diseases. However, it has been demonstrated that the vesicles of this disease contain the infectious material, and that children can be successfully immunized by inoculating them with this virus. It is also possible to confer a passive immunity in children exposed to this disease, by injecting them with serum from patients who have just recovered from the disease.

Recently an interesting relation has been shown to exist between chicken-pox and herpes zoster. A child exposed to a case of herpes zoster may occasionally after an interval of two weeks present chicken-pox, and a patient with chicken-pox may cause herpes zoster after the same period of incubation. It has not yet been definitely determined whether these two diseases are caused by the same infectious material.

9. VACCINATION.

Some years ago Noguchi succeeded in producing a *bacteria free vaccine*, and was kind enough to place some at my disposal. I inoculated 50 infants, comparing the results with those obtained with the vaccine of the New York Department of Health, in an equal number of cases. Both vaccines were found to be equally effective, the reactions with the Noguchi vaccine being slightly less marked. Infants who were vaccinated with the latter could not be successfully vaccinated subse-

quently with the Board of Health vaccine. However, it has not replaced the old vaccine for the reason, I believe, that with ordinary care, infection practically never occurs at the time of vaccination, but later through the wound, and is due to gross carelessness.

Some years ago when Knöpfelmacher first suggested *vaccination by intracutaneous injection*, I tried it, but could not convince myself that it had any advantages. It is more painful. If properly done, it is not difficult to vaccinate a series of infants in the regular way, without causing a single one to cry. This is impossible with the intracutaneous method. As for scarring, if one scratch one-eighth of an inch long is made, and ordinary care is taken to prevent subsequent infection, the scar is exceedingly small. The large white cicatrices which one often sees are inexcusable. Infection does not take place at the time of vaccination, but secondarily in the wound. This should be very small, and should be covered with a small gauze pad. The fact that almost all vaccinations are now done in the old way is conclusive proof that the method is satisfactory.

PRENATAL CARE AND MATERNITY WELFARE FROM THE STANDPOINT OF THE STATE.*

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ALBANY, N. Y.

INTRODUCTION.

THE request for this paper specified that the discussion cover the relation of the state maternity hygiene program to cities and rural communities and also to the medical profession and the laity. An attempt will be made to bring out these points in the presentation of our work under the following headings:

First: The problem with which we have to deal in carrying out the measures of the law regarding safeguarding of motherhood.

Second: Our present methods of solving this problem.

THE PROBLEM.

The problem itself presents the following phases:

1st: The needs for the safeguarding of motherhood in various parts of the state. We are all aware that the data on maternal mortality is more or less meager. In beginning my work in the State Department of Health there was available only a limited amount of material relating to maternal mortality rates in the various parts of the state. Our first effort was, therefore, di-

*Read at the Annual Meeting of the Medical Society of the State of New York, at New York City, May 23, 1923.

rected toward finding out existing conditions in the state. As the result of a study made by the Division of Vital Statistics, we have now available a bulletin entitled "Geographical Distribution of Maternal Mortality in New York State." This shows by graphs the maternal mortality rates in urban areas; the maternal mortality rates in rural areas; also the rates by causes in rural and urban areas and the still-birth rates. Tables I and II.*

We see that Upstate New York has a maternal mortality rate nearly one-third higher than New York City and that certain areas of the state have much higher rates than others, both as to all causes of maternal mortality and as to the cause which comprises one-third of the deaths—puerperal septicemia. Why, with our present knowledge of obstetrics and maternity hygiene, puerperal septicemia and eclampsia should play such an important factor in maternal deaths, we do not know. 1922 statistics show that of 634 maternal deaths, 188 were caused by puerperal septicemia and 175 by albuminuria and convulsions. Thus 363 or more than half the deaths were due to causes generally believed to be preventable. We have, therefore, before us not only the problem of reducing this high maternal death rate, but also the problem of finding out more about the contributing causes. It is claimed that where adequate prenatal care is given the maternal death rate can be reduced at least one-half.

Infant mortality statistics show that the greatest number of infant deaths occur in the first weeks of life and that about 45 per cent are due to the so-called prenatal, natal and neonatal causes which are largely preventable. In 1922 in New York State (exclusive of New York City) more than one-fourth of these deaths were caused by premature births alone. Moreover, mothers have very little idea of the necessity for early and continuous medical supervision during pregnancy and very little knowledge of maternity hygiene. And there is still the much argued question of the availability of medical care in all sections. There are areas where hospital care is not easily available and of the adequacy of such care, particularly in the private maternity hospitals, we know little.

Recently in twenty-one counties of New York State, histories of prenatal care of the mother were taken at the Children's Health examinations. Good prenatal care was indicated by:

Good—General physical examination including heart and lungs and measurements of pelvis. Blood pressure and urinalysis at least monthly after fifth month. With patients who have had previous full term, normal sized babies without difficulty, care will be considered good when pelvic measurements are not made.

TABLE III.
PRENATAL CARE BY COUNTIES.

	Good		Poor		Not Recorded			
	No.	%	No.	%	No.	%		
	2782	100	911	32.7	1778	63.9	93	3.3
Cayuga	35	1.3	7	20.0	27	77.2	1	2.7
Chautauqua	444	16.0	120	27.1	316	71.1	8	1.8
Chenango	6	0.2	2	33.3	4	66.7		
Cortland	102	3.7	32	31.4	65	63.8	5	4.9
Erie	488	17.5	177	36.4	280	57.4	31	6.3
Essex	95	3.4	14	14.7	79	83.2	7	2.2
Franklin	147	5.3	33	22.5	112	76.2	2	1.3
Genesee	147	5.3	21	14.3	122	83.0	4	2.7
Herkimer	134	4.8	40	29.9	89	66.4	5	3.8
Oneida	93	3.4	32	34.5	55	59.2	6	6.4
Onondaga	50	1.8	21	42.0	27	54.0	2	4.0
Ontario	78	2.8	31	39.8	42	53.9	5	6.4
Otsego	55	2.0	18	32.8	33	60.0	4	7.2
St. Lawrence	68	2.4	12	17.7	56	82.4		
Saratoga	23	0.8	19	82.7	4	17.4		
Schenectady	173	6.2	102	59.0	71	41.0		
Schuyler	199	7.2	59	29.6	136	68.3	4	2.0
Tompkins	67	2.4	12	18.0	49	73.2	6	8.9
Washington	43	1.5	8	18.7	35	81.4		
Wyoming	133	4.8	41	30.9	91	68.5	1	0.7
Yates	202	7.3	110	54.5	85	42.1	7	3.5

Under prenatal care by counties we have a total out of 2,782 mothers of 1,778 or 63.9 who had poor care and only 911 or 32.7 who had good.

The counties with the highest percentage of poor care are Essex, Genesee, St. Lawrence and Washington, all high in maternal mortality rates.

The only counties where good predominates over poor are Saratoga (82.7%) Schenectady (59.0%) and Yates (54.5%).

Methods of Solving the Problem.—Our policy in solving this problem is one of education, stimulation and assistance.

EDUCATION.

Education deals primarily with education of mothers and of nurses.

Education of Mothers.—Mothers need to be taught the importance of adequate maternity care. In general they know very little of what they should do during the period of pregnancy to safeguard themselves against complications. The fact which needs most to be taught and which we constantly emphasize, is that each mother should be under the continuous supervision of a physician, from the beginning of pregnancy throughout the puerperium. This educational program is carried out, in part, by the distribution of literature and by the formation of Mothers' Health Clubs. A pamphlet called "Suggestions for Prospective Mothers" is sent to all brides whose names are taken from the marriage register. These are also distributed at our consultations, child hygiene stations and various other places. Films, lectures and the press are also utilized. We have urged a number of the state-wide women's organizations to the formation of Mothers' Health Clubs where group instruction in maternity hygiene may be given by nurses and Child Hygiene Stations are stimulated and assisted to make Mothers' Health Clubs a part of their program.

* See pages 328 and 329.

TABLE I.
MORTALITY FROM ALL PUERPERAL CAUSES FOR THE FIVE YEAR PERIOD, 1916-1920:
COUNTIES OF NEW YORK STATE

Maternal deaths per 10,000 births, including stillbirths	
NEW YORK STATE	54.90
NEW YORK CITY	46.72
STATE (exc. N.Y. City)	65.87
Rural	56.51
Cities over 2,500	69.43
Villages over 2,500	71.07
Schoharie	109.38
Otsego	104.95
Jefferson	103.50
Cattaraugus	100.14
Hamilton	95.01
Essex	93.62
St. Lawrence	86.37
Orange	84.31
Washington	83.95
Genesee	82.19
Steuben	79.00
Delaware	78.40
Franklin	78.37
Ulster	77.00
Wyoming	75.93
Clinton	75.54
Columbia	75.39
Rockland	75.30
Oswego	75.04
Schuyler	74.47
Lewis	73.52
Allegany	73.42
Fulton	73.36
Rensselaer	72.04
Wayne	70.10
Tompkins	70.02
Niagara	69.55
Chemung	69.37
Saratoga	66.66
Chenango	66.67
Cayuga	67.99
Broome	66.16
Dutchess	65.26
Ontario	65.13
Onondaga	64.50
Greene	64.41
Westchester	64.33
Schenectady	63.97
Chautauqua	63.69
Herkimer	62.54
Yates	61.90
Oneida	61.53
Cortland	60.02
Livingston	58.93
Warren	58.86
Seneca	58.19
Montgomery	57.10
Madison	56.67
Eric	56.36
Suffolk	55.35
Rensselaer	55.22
Albany	55.04
Monroe	54.86
Sullivan	51.55
Tioga	49.31
Orleans	42.35
Putnam	18.57

Education of Nurses.—We have found it necessary to enter very modestly the field of nursing education. In planning for the education of mothers the fact was brought out that very few public health nurses now in the field have had training in teaching maternity hygiene to mothers. Their obstetric training has comprised chiefly the ordinary hospital obstetric service which in too many cases includes no prenatal care and very little more than the two weeks' care of the mother in the hospital at the time of confinement. We have, therefore, been carrying on for nearly a year an extension course in maternity hygiene for nurses. This is given by a special

instructor of nurses in fifteen centers throughout the state. The nurses from the surrounding territory come to these centers once a month for lectures and demonstrations. The material covering the eight classes is outlined below:

1. General problems of maternal and infant mortality in nation and state. Factors in reduction.
2. How to organize Mothers' Health Clubs.
3. Physiology and hygiene of pregnancy.
4. Discomforts and abnormalities of pregnancy.
5. Full prenatal visits.
6. Preparation for delivery.
7. Aftercare of mother and baby. Breast feeding. (Examination—written.)
8. (A talk on Nutrition or Diet in Pregnancy by the Nutritionist of the Division, is optional, which makes eight class periods.)

DEMONSTRATIONS.

Layette and patterns.
Breast tray: Care of nipples.
Abdominal support.
Shoulder garters.
Taking the blood pressure.
Urinalysis.
Baby's tray.
Preparation of delivery bed.
Preparation of baby's bed.
Baby's bath.

This class has been given once this past year with an initial registration of over 300 names. It is now being repeated upon request with a registration of 214.

In addition to the extension class, outlines for the teaching of mothers' health clubs have been prepared for the use of nurses.

STIMULATION AND ASSISTANCE.

The stimulation is directed toward the individual communities hoping that by this means all parts of the state may be encouraged to take more interest in the care of the mother throughout pregnancy, confinement and the puerperium.

The methods of stimulation used for the laity are the usual ones of press, films and lectures, and also a special attempt through women's organizations to stimulate activities in local communities. A letter has been sent out to the branches of the state-wide women's organizations outlining five projects by which any women's organization may assist in this work.

TABLE II.

MORTALITY FROM PUERPERAL SEPTICEMIA FOR THE FIVE YEAR PERIOD, 1916-1920:
COUNTIES OF NEW YORK STATE

Maternal deaths per 10,000 births, including stillbirths

NEW YORK STATE	16.44	████████████████████
NEW YORK CITY	13.58	████████████████
STATE (exo. N. Y. City)	30.29	██
Rural	15.58	████████████████████
Cities over 2,500	33.04	██
Villages over 2,500	30.89	██
Otsego	39.05	██
Delaware	36.90	██
Schoharie	36.46	██
Levie	36.26	██
Madison	33.03	██
Allegany	31.88	██
Jefferson	30.75	██
Fulton	30.35	██
Cattaraugus	29.53	██
Genesee	39.01	██
Orange	28.83	██
Chenango	28.09	██
Oswego	27.17	██
St. Lawrence	28.81	██
Rockland	36.54	██
Wyoming	28.41	██
Essex	25.73	██
Herkimer	25.26	██
Rensselaer	24.97	██
Onondaga	24.10	██
Steuben	23.94	██
Hamilton	23.75	██
Tompkins	23.34	██
Chemung	23.09	██
Broome	23.05	██
Schuyler	22.34	██
Niagara	21.85	██
Westchester	21.41	██
Ontario	21.12	██
Cayuga	20.09	██
Warren	18.52	██
Schenectady	18.50	██
Washington	18.15	██
Dutchess	17.70	██
Erie	17.88	██
Columbia	17.57	██
Montgomery	17.57	██
Monroe	17.48	██
Oneida	17.14	██
Wayne	17.00	██
Orleans	16.29	██
Ulster	16.39	██
Chautauqua	16.12	██
Albany	16.03	██
Clinton	15.81	██
Suffolk	13.59	██
Saratoga	13.43	██
Cortland	13.34	██
Franklin	13.19	██
Nassau	11.94	██
Sullivan	10.31	██
Greene	8.59	██
Saratoga	7.99	██
Livingston	7.89	██
Yates	6.88	██
Tioga	4.93	██
Putnam	0	██

1. Nursing Service.
 - (a) Demonstration Nursing Service.
 - (b) Consultant Nursing Service.
2. Organization Service.
3. Prenatal Consultation Service.
4. Licensing and supervising midwives.

A. Demonstration Nursing Service.—The services of a public health nurse are loaned by the state to a local community requesting such service through its Health Officer or Sanitary Supervisor. The service given varies in time from two weeks to four or six months. During this period the demonstrating nurse organizes maternity and child hygiene activities in the community and develops them so that the work may be turned over to the community nurse when the state withdraws. The community is asked to furnish

co-operation, transportation for the nurse and assurance of its intention to carry on the work after the demonstration is completed. Such service has been given or is being given in four urban and three rural communities as follows:

- Geneva
- Elmira
- Glen Cove
- Ithaca
- Albany County
- St. Lawrence County
- Ulster County

B. Consultant Nursing Service.—Consultant nurses give assistance to child hygiene stations. Standards for the conduct of mother and child hygiene stations have been outlined and the consultant nurses visit such stations and assist in the organization and extension of maternity hygiene work. One hundred and sixteen stations exist in the state outside of Buffalo and Rochester. When this work was started in November only five were doing any type of maternity hygiene work in the stations.

Prenatal Consultations.—These are of two varieties. The first is a demonstration consultation made by our unit of obstetrician and nurse who hold a single prenatal consultation to demonstrate methods to the community which desires to continue the work under its own local auspices.

The second variety is a series of continuous

These projects include in addition to the formation of mothers' health clubs the provision of household assistance to mothers at the time of confinement; the formation of child hygiene study classes which will study the entire local problem and try to meet its needs; the maintenance of a loan closet of supplies for obstetrical cases and the provision of a public health nurse or of a bedside nurse.

Assistance Available to Communities.—The following types of assistance to communities in establishing maternity hygiene activities serve in some measures as stimulation.

prenatal consultations held at monthly intervals in various localities throughout the state by our unit of obstetrician and nurse. The purpose is to demonstrate methods, to stimulate a community to start prenatal work, and to give expectant mothers who are not under the care of a physician, prenatal supervision and instruction in maternity hygiene. The types of patients reached are those who have made no provision for maternity care and for those who have arranged for a midwife as attendant at birth.

These consultations are given to a community only upon the request of the Health Officer or Sanitary Supervisor, taking into consideration such local conditions as sufficient local nursing service to assist in the consultations and to care for the follow-up work; the distribution of midwives and the co-operation of the medical profession.

The advance work for the consultations is done by our nurse assisted by the Sanitary Supervisor, the local Health Officer and local nurses. The Sanitary Supervisor and the local Health Officer are expected to get in touch with the local physicians and secure their co-operation. The nurse assists in this and also interviews the midwives and arranges with them to send their patients to the consultation. Local social agencies, churches and welfare organizations report cases needing care. A definite appointment is made for each patient on the date of the consultation. The work at the consultation itself which is conducted by our obstetrician is divided into two types; instruction in maternity hygiene and examination and supervision of the patients. No treatment whatever is given. Physicians may send their patients to these consultations for either instruction alone or instruction and examination but such patients are not received at a consultation unless they bring with them a signed permit from the physician.

DIVISION OF MATERNITY, INFANCY AND CHILD HYGIENE
NEW YORK STATE DEPARTMENT OF HEALTH

Physician's Permit for Prenatal Consultation Service
(Please check the service desired)

- I desire
(Name of patient)
- () 1 To register and have a prenatal examination and instruction in the hygiene of maternity at Prenatal Consultation.
 - () 2 To register at Prenatal Consultation and have instruction only, without examination.
 - () 3 Not to register at the Prenatal Consultation.

(Signed)M.D.

AddressDate

A report of physical defects and obstetrical difficulties is sent to the physician in charge and also to the local nurse. Patients not under medical care are advised to consult a physician for any defects found. The local nurse does the follow-up work and visits all patients at the necessary intervals between the dates of the consultations. These consultations started September 28th, the first one being held in Rome. The report of the first six months work which follows therefore shows the growth of the work over this period of time.

Licensing and Supervision of Midwives.—Although a less direct method of assistance it should here be mentioned that midwives are licensed by the State Department according to legal provisions, and are prosecuted for disobeying the law. They are supervised by an Inspector of Midwives assisted by local Health Officer and public health nurse. Instruction is given by means of quarterly letters and by talks to midwives in groups. There are about 430 outside of New York City and Rochester and they deliver from 11-12% of births. In all places except one where prenatal consultations are being conducted there has been good co-operation on the part of the midwives. It is interesting to note in this

TABLE IV.
REPORT OF FIRST SIX MONTHS OF PRENATAL CONSULTATIONS.

	Yonkers	Tarrytown	Niagara Falls	Portchester	Little Falls	New Rochelle	Lackawanna	Lawrence	Rome	Totals
No. of consultations held.....	5	3	2	5	5	3	2	2	9	36
No. of new patients.....	36	11	12	13	9	16	1	3	52	162
No. of re-examinations	4	3	0	4	1	0	0	0	21	33
No. of normal births.....	11	NR	NR	NR	1	3	NR	NR	28	43
No. of abnormalities in labor.....	4	NR	NR	1	NR	1	NR	NR	4	10
No. of obstetric defects.....	98	31	32	34	25	28	2	16	135	401
No. of other defects.....	140	38	26	43	24	34	4	13	181	503

NR—Not reported.

connection that in the ten cities where the puerperal septicemia rate is highest, there are only two (Little Falls and Newburgh) which have any midwives and that in Lackawanna which has one of the lowest puerperal septicemia rates, about 50% of the births are delivered by midwives.

Relation to the Medical Profession.—It is our desire and intent in all work for mothers and children in this state to work with and through the medical profession. We realize that only with the co-operation of physicians can we hope for the results toward which we aim. There have been appointed in various parts of the state Regional Consultants in obstetrics who act as representatives of the Division of Maternity, Infancy and Child Hygiene of the State Department to the physicians to ask for their co-operation and to assist otherwise in urging on our program. Their work will be described in another paper.

In some places where our prenatal consultations are being held we have had a number of patients sent to us by physicians, particularly those who have a busy general practice and prefer to have time consuming prenatal instructions and supervision done outside their office. In all cases of course a report of each patient is sent to her physician. We have recently started, experimentally, consultations in towns where there were no midwives because the Health Officer and physicians state that there are many women who because of ignorance, indigence or indolence could never be prevailed upon to secure prenatal care except by some such method.

There appears in some localities to be a hesitancy on the part of physicians to conduct their own prenatal consultations. We have found this to be true particularly in our endeavors to have our prenatal work continued as we withdraw. We recommend that the choice of physicians for such work be made by the county medical society.

County and city medical societies are beginning to interest themselves in the problems of their own community. The Jefferson County Society has studied the conditions in that county and in Watertown and has passed a resolution pledging themselves to do all in their power to further the reduction of high maternal and infant mortality rates as individuals and as a society and have sent a committee to the County Supervisor to request the State nursing demonstration assistance and also funds for the permanent support of activities.

The Rensselaer County Society has voted to ask for a survey of the county and Troy and to back a child health campaign to be launched in that county in June.

The Wyoming and Cattaraugus Societies have appointed committees to assist in this work and the Albany County Society has founded a

committee on maternity and infant hygiene. One county society appointed a committee to investigate our work and after such investigation has reported favorably to the society.

The Long Island physicians are co-operating in a breast feeding demonstration now in progress.

CONTINUED STUDY OF THE PROBLEMS

Realizing that our knowledge of underlying causes of many of the conditions relative to maternal and early infant deaths is by no means complete, we are making an effort to throw light upon this subject. Continued study of the contributing causes of maternal mortality is being undertaken by a questionnaire sent out to physicians in whose practices puerperal deaths occur. This information is sought entirely with the idea of throwing light upon the situation and an accompanying letter explains that it is confidential. There has been about 50% co-operation of the medical profession in the return of these questionnaires.

Certain localities having high rates have requested us to make a survey of local conditions with recommendations for their improvement. Such a survey has been completed in Plattsburgh; two are now under way in Ogdensburg and Port Jervis.

SUMMARY

The Problem

1. New York State has a much higher maternal mortality rate than New York City.
2. Puerperal septicemia and eclampsia cause more than one-half the maternal deaths and are largely preventable.
3. 45% of the infant deaths in the first months of life could be prevented by adequate maternity care.
4. Medical care and adequate hospital facilities are not available to all communities.
5. Mothers have little knowledge of adequate maternity care.
6. There are indications that good prenatal care is not universal.

The Solution of the Problem

1. Educating mothers to the importance of continuous medical supervision and of principles of maternity hygiene.
2. Educating of nurses for teaching mothers.
3. Stimulating and assisting communities to provide facilities for adequate maternity care.
4. Securing the interest and co-operation of physicians.
5. Licensing and supervision of midwives.
6. Studies and surveys of existing conditions.

In conclusion the following points will bear emphasis:

Each locality should provide its own facilities for adequate maternity care. That it is not doing so is evident by the high mortality rates existent and the report from 21 counties. The State's responsibility is in stimulating localities to make such provision through education and such forms of assistance as those above outlined. This type of public health work adds to the local physician's activities by putting more prospective mothers in touch with physicians; by increasing the period of medical supervision and by referring defects to him for correction. In addition it eventually should enable him to do better work in an enlightened community.

No state or local program can succeed without the intelligent assistance and co-operation of the medical profession. Upon this profession rests the real burden of improving conditions. The Division of Maternity, Infancy and Child Hygiene of the State Department of Health in its work of safeguarding motherhood and protecting the health of infants and children is making an earnest effort to secure the interest and co-operation of all physicians of the state.

PRENATAL CARE AND MATERNITY WELFARE FROM THE STANDPOINT OF THE REGIONAL CONSULTANT.*

By JAMES KNIGHT QUIGLEY, M.D., F.A.C.S.,
ROCHESTER, N. Y.

AN increasing interest in infant welfare work during the past ten years was probably largely responsible for the passage of the Sheppard Towner act for it soon became evident that the welfare of the infant was closely associated with that of its mother; that a large proportion of the high infant mortality of the first month of life was due to natal and prenatal causes and that in order to lower this it would be necessary to attack the problem prenatal as well as postnatal, in addition it has long been felt that the maternal morbidity and mortality is higher than it should be. Dr. Grace L. Meigs' survey of the number of puerperal deaths in the registration area of the United States made in 1917 for the Children's Bureau of the United States Department of Labor only confirmed this idea and was also instrumental in furthering national legislation for the protection of the lives of women of child-bearing age. With this report you are all no doubt familiar but two or three points are worthy of repetition. Dr. Meigs estimated that in 1913 in this country 15,000 women died of conditions incident to childbirth and of this number 7,000 were from puerperal sepsis, also that childbirth caused more deaths among women from

fifteen to forty-four years of age than any disease except tuberculosis.

As a preliminary to the work in New York State Commissioner Biggs directed that a geographical survey be made of maternal mortality from all puerperal causes, from puerperal sepsis, and for the incidence of still-births. This very exhaustive work was completed and published for general distribution under date of June, 1922.

This survey brings out one rather interesting fact—New York City with its enormous foreign tenement population, many of which are confined by midwives shows a death rate per 10,000 births from all puerperal causes of 46.72 while the state exclusive of New York City is almost twenty points higher 65.87 (per 10,000) again, deaths from puerperal septicemia in New York City per 10,000 was 13.58, the state exclusive of New York City 20.29. The New York City rate for puerperal deaths is markedly lower than that of any city in the United States, Boston, Baltimore and Philadelphia are all higher.

While this record of the country's greatest city is an enviable one, nevertheless it is higher by 40 per cent than that of Birmingham, England, the lowest of any city on record, 33.49 for the period 1913-18, while up state New York is nearly double this figure and the rate for 96 villages of 2,500 or over is 20 points higher than the New York City rate and almost twice as high as the Birmingham figure. The reason for these wide differences is simply this, New York City has intensified its prenatal and child hygiene work, the entire city is organized and districted. Birmingham is still lower because the work has been going on for a longer period, they were the pioneers.

Public health authorities are not alone interested in this subject—The American Association of Obstetricians, Gynecologists and Abdominal Surgeons through a committee on material welfare are trying to determine just how much is being done throughout the country and within a week I have received a letter of inquiry from which I wish to quote:

"We are confronted by the appalling fact that in spite of all propaganda heretofore proposed for a betterment of obstetrics, statistics show that neither the morbidity nor the mortality of infection and toxæmia are being reduced in the United States. Our position relatively in the list of civilized nations is one of which we are not proud." (Of fifteen foreign countries only two had a higher puerperal death rate than the United States.)

"Our organization which as Dr. Albert Vander Veer writes to the committee, has been instrumental in effecting other vital reforms, should take an active part in this crisis and by a united effort impress not only the public mind but also that of the profession of medicine and that of nursing

*Read at the Annual Meeting of the Medical Society of the State of New York, at New York City, May 23, 1923.

as to the vast possibilities of benefit to be accomplished in this work of humanity.

"One need only to refer to the marvelous records of the antenatal clinics and the well managed maternity hospitals to be convinced of the lesson which is taught on every page so strikingly that neglect of better prenatal care and better technic is bordering on barbarism."

Signed, Henry Schwarz, Geo. W. Kosmak, George Clark Mosher, Chairman.

Upon the passage of the Davenport Moore Act on April 1, 1922, Commissioner Biggs and the Division of Maternity, Infancy and Child Hygiene laid out a program for the organization of the work of this department, entrusted with the administration of this new law, this program included the appointment of Regional Consultants in obstetrics and pediatrics, of the former there were eleven and the sixty counties of the state were apportioned to these men, the number varying from two to eight counties per consultant.

It has been felt from the first that this work in order to succeed must have the hearty co-operation of the medical profession. That the state instead of usurping the authority or rights of the doctor, instead of competing with him stood ready to co-operate, that his interests were its interests and that the relations of the doctor to the state and vice versa should and can be under this plan co-operative and reciprocal rather than antagonistic by causing the patient to go to her physician earlier. By creating a demand for better obstetrics and pediatrics it would encourage and stimulate the work of medical men striving to do good obstetrics (and conversely).

Secondly it was felt that this program was largely one of education, a public health propaganda of the preventative medicine type.

Functions—As regional consultants we were to address medical organizations presenting the program of the State Department of Health and ask for co-operation of medical men, through the local societies. To stimulate an interest in obstetrics and pediatrics by devoting an evening to a symposium on these subjects. To address lay organizations when invited; outlining the program of the Department, the need for the work and asking for co-operation in the organization of clinics. To serve as consultants in cases unable to pay for such service. To keep the Division informed of any special need in their respective districts. To report to the Division the names of physicians in their districts interested in obstetrics and who would serve in the instigation and maintenance of clinics. In addition to this the Division asked its Board of Regional Consultants to adopt a Minimum of Standards for obstetric practice. After considerable discussion a formula was passed by all the consultants and is as follows:

MINIMUM STANDARDS OF MATERNITY CARE
ADOPTED BY REGIONAL CONSULTANTS
IN OBSTETRICS.

John Osborne Polak, M.D., 20 Livingston St., Brooklyn; James K. Quigley, M.D., 303 Alexander St., Rochester; Harold C. Bailey, M.D., 22 E. 68th St., New York City; Arthur C. Martin, M.D., 96 N. Village Ave., Rockville Center; Francis C. Goldsborough, M.D., 515 Franklin St., Buffalo; Reeve B. Howland, M.D., 312 Lake St., Elmira; Paul T. Harper, M.D., 289 State St., Albany; Page E. Thornhill, M.D., Woolworth Bldg., Watertown; Stuart B. Blakely, M.D., 123 Murray St., Binghamton; Henry W. Schoeneck, M.D., 608 E. Genesee St., Syracuse; Ralph W. Lobenstine, M.D., 162 E. 71st St., New York City.

Hermann M. Biggs, M.D., Commissioner.

Issued by Division of Maternity, Infancy and Child Hygiene.

PRENATAL.

Continuous medical supervision should begin as soon as the mother suspects pregnancy.

Hospital care should be advised when indicated and available, for all parturients (particularly primiparae) and should be insisted upon for all abnormal cases.

FIRST VISIT should include:—

Histories of previous pregnancies and labors
Determination of expected date of confinement
Instruction in the hygiene of pregnancy including:

- Diet
- Elimination
- Exercise
- Rest
- Clothing
- Care of the breasts preparatory to breast feeding
- Marital relationship
- Provision of literature on prenatal and infant care

Physical examination should be made as early in pregnancy as practicable.

Special attention should be directed to
Determination of blood pressure

- Urinalysis
- Heart, lungs and kidneys
- Thighs, legs and vulva for varicosities
- General nutrition
- Posture with examination for spinal curvature, subluxation of sacro-iliac joints or other abnormality
- Blood Wassermann when indicated

Pelvic examination

- Palpation of bony pelvis
- Pelvimetry, the following measurements being suggested:

Interspinous
Intercristal
External conjugate
External obliques
Internal conjugate (estimated)
Transverse of the outlet
Posterior sagittal

Classification as to type of pelvis

Vaginal examination preferably after the first 6 weeks if there are no indications of abnormalities

Instruction of the patient to report promptly the following symptoms:—

Headache
Nausea
Dizziness
Visual disturbance
Epigastric pains
Bleeding
Constipation
Edema

FREQUENCY OF VISITS. The patient should visit her physician at least once a month until the sixth month, then every two weeks or oftener as indicated, preferably every week in the last four weeks. Local nurses and social workers could be utilized to follow up patients if they do not return at the appointed time.

SUBSEQUENT VISITS should include:—

Determination of blood pressure

Urinalysis

Examination for fetal heart

Any other examination that may be indicated
Determination of presentation and engagement and probable position of the fetus after the 7th month

Vaginal examinations should not be made after the seventh month unless indicated. If made they should be conducted under the same aseptic precautions as for delivery. Rectal examinations will usually furnish necessary information.

Instruction to the patient in:—

Preparation of person, room, outfit for confinement and for the baby. This may often be given by the patient's nurse or by the local visiting or community nurse at the physician's request.

DELIVERY.

Time should be given freely

Consultant facilities should be available. As any abnormality requires more than average experience it should not be handled without the advice of a consultant obstetrician

Nursing care should be adequate

Equipment sufficient to meet emergencies should be accessible.

Surgical cleanliness

Rubber gloves, sterilized by boiling or steam pressure should be used for examinations and delivery

The vulva should be shaved and the entire field cleaned and made and kept aseptic

Vaginal examinations should be avoided if possible. Usually confirmation of previous findings can be made and progress satisfactorily followed by rectal and abdominal examinations.

Indications for interference, the cervix being fully dilated or dilatable and no other abnormality being present

Failure of labor to progress

Fetal heart rate below 100 or above 170

Should radical interference become necessary, the same careful surgical technique should be used as when entering the peritoneal cavity.

Examination after delivery should include:—

The perineum and vaginal outlet for evidence of lacerations which should be repaired immediately

The placenta and membranes to see if they are complete

The uterus by external palpation to see if it is empty and firm

Time should be taken to examine the baby thoroughly and to give full directions for the care of both patients.

Hemorrhage:

Normal contractions of uterus, determined by abdominal palpation should be maintained for at least one hour after it is emptied

In event of persisting hemorrhage immediately after delivery which does not yield to ordinary measures the fundus should be massaged through the abdominal wall. If bleeding continues the cervix may be examined for lacerations and necessary repairs made

Freshly sterilized gauze for packing should be available.

PUERPERIUM OR POSTPARTUM PERIOD

The patient should be seen by the obstetric attendant as often as may be needed

POSTPARTUM VISITS should be made at least, on

First day, to determine uterine contraction, bladder tone, to establish breast feeding

and note general conditions of the patients
Third and fifth days, to determine possible evidence of infection and note involution

Tenth day, to determine involution, general condition of patients and to fix the time when mother may sit up

A final bimanual examination should be made about six weeks after delivery or before the patient resumes usual activities to determine displacements, subinvolution, cervicitis, resolution of lacerations with correction of defects.

The patient should remain in bed at least ten days after delivery

She should not resume full activities for six weeks after delivery as it takes six to eight weeks for complete involution to take place

The services of a visiting or community nurse may be secured if available for the aftercare of patients if such service is desired.

To review the activities of the Regional Consultants since their appointment less than a year ago.

A conference was held on September 18th at Albany and the plans of the Division were discussed. Since this date forty medical societies, two district meetings, one medical society which held an open meeting to which the public was invited, two groups of mothers and one day nursery association were addressed. In one county where a prenatal clinic had been inaugurated by an obstetrician of the Division, the county medical society appointed an investigating committee, which although it began its work in a critical mood nevertheless after a visit to the clinic was convinced that the work was on an ethical basis and so reported to the society which gave the work its approval—several County Societies have appointed committees to co-operate with the Division, while others have not been heard from since the program was placed before them.

More recently the Jefferson County Medical Society has passed a resolution to institute maternal and infant welfare work on a county-wide basis and have persuaded their Board of Supervisors to ask the Division for a Demonstration nursing service and will provide funds for two nurses if the service is satisfactory.

The Rensselaer County Society passed a resolution asking the Division for a survey of Rensselaer County and Troy and to "Do anything we can to assist in lowering their high mortality rate."

It would seem to the writer that prenatal work in two or three of the larger cities is quite well organized, also that much can be done in the remaining large cities and probably with less effort than in the small municipalities and villages where there is still considerable need for it.

I have already shown that there is need for an improvement in obstetrics generally also that some communities have demonstrated the value

of better care for the parturient both prenatal and at the time of delivery and postnatal. I have also said that this is largely an educational campaign, the recipients of this care cannot be forced or coerced into accepting it.

The state stands ready to organize the work after which it is to be self-supporting as a community obligation. I might add that the Regional Consultants are available for demonstration clinics at the request of medical societies. Two have already been held in Pediatrics, one at Little Falls in Herkimer County and one at Salamanca. I believe the clinics in the smaller cities and villages can become just as popular as those of the larger centers of population, and in time will be rewarded with equally good results. How soon these results will be achieved rests very largely with the medical profession, it is really a great opportunity, for the physicians of this and every state to realize their responsibility—preventive medicine is the order of the day, this is not a revolutionary program neither is it new or untried and it is up to us physicians to be in the vanguard of any measure which makes for better health.

PRENATAL CARE AND MATERNITY WELFARE FROM THE STANDPOINT OF THE MATERNITY CENTER WITHOUT HOSPITAL CONNECTION.*

By GEORGE W. KOSMAK, M.D., F.A.C.S.,
NEW YORK CITY.

IT is perhaps needless to debate the value and importance of prenatal care and maternity welfare either from the narrower standpoint of the individual mother, immediately benefited, or viewed from the wider aspect of the community, or the State as a whole. It is not until comparatively recent years, however, that the medical profession has in a large or practical way given its attention to this subject, and again, as in so many other fields, lay organizations have taken an important part in this field of preventive medicine. A remarkable impetus was given to the movement in 1906 when the U. S. Census Bureau published the mortality statistics for the first five years of the present century and called attention to the appalling loss of life in association with pregnancy. Hand in hand with this came the study of infant mortality and its prevention by appropriate feeding and other measures. In this connection the idea gradually gained ground that by caring for the mothers before their babies were born a great advantage could be secured. Various municipal Boards of Health developed departments of child hygiene and among the earlier ones was that in New York City, begun in 1908. National recognition from the lay point of view was given by the establishment of the

*Read at the Annual Meeting of the Medical Society of the State of New York, at New York City, May 23, 1923.

Association for the Study and Prevention of Infant Mortality in 1909, which has since been merged with another organization but stands out in the history of the movement for better babies and healthier mothers as a pioneer in the field. In 1912 the Federal government recognized the importance of this work and in its Department of Labor established a so-called Children's Bureau, which originally was organized for the protection of children in industry, but has largely abandoned this field and is now devoting itself more particularly to maternal and infant welfare work. Since then almost every city has recognized the importance of prenatal care, both by the official stand and municipal agencies, and by numerous lay and medical organizations. A great deal of the lay, and some of the medical methods, have perhaps taken on the nature of agitation rather than propaganda and even today, although conditions are altered, we as a profession are still reminded by our critics of the unenviable position of the United States as fourteenth in the list as regards its mortality due to childbirth. This statement has constituted such an appeal that it is still being broadcasted and very little effort made to produce later figures that might constitute a more favorable bearing on the subject. However that may be, no one interested in the important phase of community health, whether medical or lay person, can gainsay the need for continued and sane education on the subject of prenatal care, maternal welfare and allied topics. In attempting to bring about this favorable state, care should be taken particularly by the medical profession not to overstep the bounds of reason, nor to listen without restriction to many of the exaggerated claims of the laity, anxious to develop gain or glory from the propaganda. At the same time the medical profession should be admonished for the slowness with which it has accepted many of the truths brought out through the medium of this agitation. Here, as in the other instance, education must bring out in our medical schools and hospitals the importance of preventive and curative factors in the study of obstetrics as a part of our medical college curriculum. This education should not only be extended along the lines of public welfare measures but should also be impressed upon the general practitioners who care for the majority of our pregnancy cases and likewise upon the midwife, despised as she may be at the present time.

In this connection the more specific title of my paper may be taken up; namely, the development of maternity centers without hospital connections. A survey of the facilities for maternity care in New York City was undertaken by Dr. Emerson, Health Commissioner in 1915, through the medium of a committee consisting of Drs. J. Clifton Edgar, Philip Van Ingen and Ralph W. Lobenstein, which in co-operation with the New York

Milk Committee found that hospitals cared for about 30 per cent of the deliveries, midwives for another 30 per cent and the remaining 40 per cent by the general practitioners and specialists in obstetrics. Adequate prenatal care was given to but few of the midwives' cases and only an unsatisfactory number of the hospital patients. It was found that although prenatal work was being done by several agencies, there was no uniformity or co-ordination in their work and a comparatively small number of women received adequate prenatal care. It was believed at the time that more adequate attention could be given to the general run of pregnant women not cared for by private physicians, if the city could be districted and the patient referred for her care to the nearest hospital. It was also recommended that a maternity center be established in each one of the ten zones in which the Borough of Manhattan was divided. The function of these centers was to teach the community the need for and the value of medical and nursing supervision throughout pregnancy, to secure that supervision by co-ordinating the work of the existing agencies and to conduct a medical clinic in each center where attention could be given to patient not under other medical care, and where patients who applied for advice could be given same and referred to either a doctor or a midwife, or hospital, as the case and circumstance seemed to demand. Where patients were to be confined at home, assistance was also to be given through the medium of trained nurses. While it was the aim of this association to co-ordinate existing facilities and to avoid overlapping of interests, etc., the important function of teaching nurses and others in this particular phase of social welfare activities soon became an essential feature of this work. Various modifications have resulted in a change in many of the original features of the New York Maternity Center Association and the lack of funds cut down the number of stations originally under its supervision. Personally I believe that one of the most important functions of an organization of this kind should consist in establishing in various parts of the city centers of information and instruction as originally planned by the association and that its activities should be freed from the burden of unnecessary details of history taking, classification of patients, too intimate study of the patients' economic status and other time consuming functions which interfere with the practical medical work of its nurses and attendants. It is only by experience, however, that the salient and important features of such a plan can be brought to the front and given their proper status in the social welfare work of a community. The large and cumbersome organization which was developed in New York need not serve as a basis for similar activities elsewhere and the value of the plan is such that wider recognition should be

given the same. It is quite generally assumed that improvement in obstetrics can only be attained through the medium of increased hospital facilities and that mortality and morbidity statistics will always remain high while home confinements prevail. This perhaps is not in accord with the statement recently circularized that a woman is safer in the hands of a midwife at home than in the hands of a doctor in a hospital. However, it is not necessary to enlarge on this point. The maternity center service so-called, can be of great service to a community, not only through possible hospital connections but otherwise, through the medium of doctors and midwives that are necessarily compelled to take care, as already noted, of a large proportion of our confinement cases. Hospitals can by no means accommodate, nor should they, all women about to be delivered. In so far as the class of patients is concerned that are not financially able to take private rooms, hospital facilities should be limited either to primiparae, or to suspected or actual abnormal cases.

Dismissing for a moment the development of a maternity center in a large city such as New York, what can a smaller community do along these lines? What is a practical means and method to attain the same ends?

The following is suggested as a working basis, freed of course, from all detail. A local medical committee, self-constituted, may develop a lay interest by the organization of a committee of prominent citizens, men and women who are not only willing to provide funds for the purpose, but to retain an active interest and supervision over their expenditure. After this organization has been completed an office may be established, easily accessible to that portion of the community which it is desired to reach. Scarcely any of our smaller cities of 10,000 inhabitants is not characterized, we might say, by a poorer quarter, often typically foreign and retaining many of its alien characteristics, including midwife practice.

The office referred to should serve as a clearing house of obstetric information and should be in charge of a competent trained nurse and social worker. If advertised in the proper circles, applicants may then be referred by churches, dispensaries, district nurses, or other agencies, for personal consultation as to the best course to be pursued by the pregnant applicant in each particular. She should be impressed with the need of proper care before, as well as during labor, and advised as to where she can secure the same. This may mean the posting of acceptable lists of physicians from which the applicant may select one perhaps nearest her home, or it may even mean lists of properly trained and supervised midwives, where the character of the population demands the same. Where hospital facilities are available, these may be considered. All of this will probably require the establishment of a

clinic in charge of a physician, paid if possible, as an important accessory, and also a visiting nurse system, but as the district nurse is now a part of community life in so many instances, suitable arrangements can usually be perfected. Regular clinic days can be held for making antepartum examinations on those women who are able to come. Under certain circumstances women physicians have been found most suitable for this position, as they often overcome the prejudices, especially of the foreign born population.

The work of a practical maternity center may be divided into two parts: (1) The organization to act as a supervising agency to patients who are registered in a hospital service, to see that they make the necessary prenatal calls where the hospital conducts a clinic of this kind, or to act as an accessory to the hospital service where the institution is not provided with a prenatal clinic. (2) To take entire charge of cases that are to be confined by doctor or midwife, including the necessary prenatal visits, and urinalysis, etc. Making reports to the attending physician and assisting at the time of labor.

Functioning in this capacity the maternity service may well supplement the work of the hospital, doctor, or physician by affording to pregnant women instruction in personal hygiene on the one hand, and making the essential preparations for labor and the newborn baby on the other.

One of the most important features of the work of a maternity center is the giving of this instruction, but I feel that it is very essential that visiting nurses limit their activities to what properly comes within their domain. It is perhaps easier to convey this information through the medium of classes for mothers, held at the center itself, but where a prospective mother is unable to come to the clinic for various reasons, personal instruction can be given by the visiting nurse. This should strictly be limited to approved methods of prenatal care, the essentials of which must be agreed upon between the attending or the consulting staff of the center and the working body of nurses. Urinalyses and blood pressure observations may also be included and unusual symptoms noted and reported to the proper supervising medical authority. It has been found that nurses are very apt to give advice of a strictly medical character and to misinterpret symptoms. Pregnancy is a normal process in most instances and equanimity of mind on the part of the pregnant woman is most essential to her comfort and welfare. Visiting nurses should be very careful to avoid all references which would in any way alarm the prospective mother. It must be borne in mind that the mentality during pregnancy is unstable and that impulse, more often than reason, is the predominating factor in a pregnant patient. I have known of women so thoroughly

frightened by being told about their blood pressure, or traces of albumin in the urine, or a slight digestive attack, that much persuasion and advice was necessary to relieve their minds. For this reason, well intentioned as they may be, close supervision must be insisted upon by proper medical authorities of the conduct of a maternity center service. There is plenty of opportunity for the exercise of common sense in persuading the patient to observe the rules of health and other things. The nurse can do a great deal from the purely feminine standpoint, for example, to persuade a patient whose home surroundings are not favorable, to come to the hospital; or if she has engaged a known incompetent, or slovenly midwife, to alter her decision. In connection with all of this, however, the medical men in a community must of themselves agree to provide good obstetric attention where the patient is in a position to engage them. It might be better in a given case for younger men to agree among themselves and their older colleagues to take over all the obstetric work in consideration for other mutual arrangements.

The signal value of a maternity center as a place for training nurses in this newly developed field is not to be denied, and this applies particularly to centers in larger cities where the material and financial support are greater. The Maternity Center of New York City, for example, has been frequently appealed to for opportunities to study prenatal outdoor nursing. In a smaller community, of course, the necessity for such teaching facilities does not exist and all the time of the Director can be devoted to the nursing necessities of the situation.

Absolute cooperation between the physicians and a maternity center are essential to the successful conduct of this system. It must be distinctly understood between the lay organization and the doctors that this success depends on a spirit of mutual helpfulness and broadmindedness. If this is done, the laity itself will indirectly become impressed with the importance of adequate and proper obstetric service, and for this to be accomplished there should be no attempt on the part of the profession to evade the call. It will mean that where a practising physician does not desire obstetric cases, he must be frank enough to say so and to be willing to turn these over to men more interested and more capable. I do not mean to imply that the general practitioner of medicine should be eliminated and that a class of obstetrical specialists are to take over all of the work of this kind in the community, but I do mean to imply that obstetrics is a specialty that can be practised by any one suitably trained and that it should serve and will serve in many instances as a bond of attachment between patient and physician that may grow more valuable as time goes on.

In conclusion. Within a comparatively short space of time the increasing importance of obstetrics, both as a science and as an art, has come to be accepted without any division of opinion. Great strides have been made but there is still much to be accomplished, mainly, as in other branches of medicine, on the preventive side. Eclampsia, sepsis, syphilis, among others, still claim their toll of victims. Women will never escape what must be designated as the accidents of pregnancy and labor, but at any rate, they may and can be freed from many sources of danger that are now accepted as of preventible origin, or largely so. It is in this phase of preventive obstetrics that self-constituted organizations, such as a maternity center, which we are discussing, can find a proper field for their activities. This cannot be done, however, without a lay interest manifested through the medium of persons who will provide, where needed, the financial support, through semi-professional organizations, such as the trained nurses, and through medical practitioners themselves. All three of these must cooperate to bring about an organization in which the responsibility of each class is recognized and accepted by agreement with the others and which shall function as an entity without invading each other's prerogatives, so as to impress upon the community its value as a factor in upholding community health.

PRENATAL CARE IN CLINICS, AFFILIATED WITH HOSPITALS.*

By JOHN OSBORN POLAK, M.S., M.D.,
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THE greatest advance which has been made in obstetrics during the last decade has been the demonstration of what can be accomplished by painstaking prenatal care. The profession at large have been, as usual, slow to adopt the routine study of the pregnant woman, from the time of her conception. However casual observation has done something, and routine antepartum study will place obstetrics on a plane with preventive medicine.

The high fetal and maternal death rate prove that the defects in our present methods of practicing obstetrics are many, and must be corrected before we can ask for recognition as teachers and practitioners; for it must be admitted that the practice of obstetrics as is done by the rank and file of the profession is not comparable with the way medicine and surgery is practiced today. Consultation is less common, and operations, when indicated, are often performed by those who are not competent or properly trained.

Individual clinics have been able to show progress—demonstrate what can be accomplished

*Read at the Annual Meeting of the Medical Society of the State of New York, at New York City, May 23, 1923.

with prenatal study, and the intelligent adoption of rational obstetrical methods.

Some realization as to the state of obstetrics as practiced by the rank and file of the profession, may be gleaned from the comparison of the still-birth rate of the Health Department Records, as compared with the records of a prenatal clinic, attached to a well organized obstetric service.

It is the purpose of this short contribution to show that in order that the maximum benefit be gained for the patient, from prenatal study as well as to properly train the obstetrician in the advantages which such study bears upon the subsequent course and conduct of labor, that the ante-partum clinic must be affiliated with a well organized hospital service, equipped to care for the abnormalities and complications that are recognized by prenatal study and manned by a staff of surgeons who have continual service both in clinic and hospital. To do this the clinic must have at its command sufficient funds for clinic clerks, social workers and follow-up nurses, in order that the sequence from the clinic to the hospital and back again to the post-partum clinic may be carried out.

Of what use is it to recognize and record a border line contraction of the pelvis or a contracted outlet, and then have the patient confined by a man who has no appreciation as to how to conduct such a labor, or does not recognize the existence of the cause of the dystocia until the woman has been infected by repeated vaginal examinations, and untimely attempts at manual or instrumental interference; *such a patient is just as well off in the hands of a mid-wife without prenatal study.* On the other hand—if the data obtained in the ante-partum clinic becomes part of her record on admission to the hospital, her labor will be conducted in such a manner as to conserve her energy and protect her against infection—while giving her a rational test of labor.

So that should operative intervention become necessary, the patient is in a condition to withstand the operative risk, and should come through her delivery in a satisfactory manner. The same is true in the toxemias of pregnancy. Here, as is well known, the blood pressure readings are the first indices of impending trouble. Rise of systolic pressure, antedates the appearance of albumin in the urine, by days or weeks. Given a woman who has been watched in the clinic, and who shows a gradually increasing pressure and a beginning albuminuria, unless such a patient is placed in a hospital, under proper environment, where her diet and rest can be controlled, her pressure studied, and her kidney function determined, not only she, but her baby are sacrificed. On the other hand—if this patient is so placed that she can have the advantages of intelligent hospital care, *conducted by the surgeon who*

is familiar with her clinic history, the pregnancy may be carried to the limit of safety, and the proper obstetric procedure, deliberately elected, with a good chance of securing a living baby—and without impairing the future integrity of her kidney tissues.

Two questions that are frequently asked by both physicians and laity are—*first*;—what is prenatal care? *second*;—when should prenatal care begin?

From an extended study of this subject we feel that some attempt must be made to clear away the fog which seems to exist in the minds of the laity as well as in the minds of some of the profession, as to what is really meant and aimed at by ante-partum study. I feel that we should educate the public and the profession in the responsibilities of motherhood; we should even go back so far as to attempt to educate our boys and girls as to who should marry. For why should the syphilitic, the nephritic, the advanced cardiac or the tuberculous marry and become pregnant—a burden on the family, the community or the state, and their children—if born alive, born with a handicap and at a sacrifice. *Unfortunately the medical profession cannot control that elusive something called Love,* but we can at least teach women that before they become pregnant they should have such a physical examination that we may determine whether or not they are the proper subjects for motherhood, and from the time of their conception, instruct them in the hygiene of pregnancy, and watch over them during their gestation for the appearance of pathology.

There are two classes of patients who may receive relatively good obstetric care—namely the poor and the very rich. The great middle class, however, have no provision made for them. They fall into the hands of the general practitioner, who takes obstetrics only as a steppingstone in developing his general practice or a subsequent specialty. It is this class of women who make up the 61% of gynecology, which is directly the result of poor obstetrics.

Tradition has taught these women that pregnancy and labor are physiological processes, and a deal of education is necessary to uproot this belief. But this must be done.

It cannot be gainsaid that the Maternity Centres, with their propaganda which is being spread over the country, and the leaflets which will shortly be placed in the hands of every woman, every prospective mother in this State, will do much to educate her as to the minimum necessities of ante-partum, inter-partum, and post-partum care. This knowledge will necessarily create a demand for better obstetrics, and the physician will not be slow to respond to this demand, as he has to every other advance in medicine; but how can he do so, unless he first educates himself in what can be learned from ante-

partum study, and what bearing such study has on the conduct of the labor. Herein lies the difficulty, for but few of the general hospitals carry on a prenatal clinic, or are equipped to give the best obstetric teaching or service.

In this country the large teaching clinics are too few, the material so scanty, that there is hardly enough to give the student, before his graduation adequate training in the care of normal cases, not to speak of the management of abnormalities. Even after his year of internship, in a general hospital, with its relatively few obstetric beds, he is not so grounded in obstetric fundamentals that he can manage the ordinary complications in such a way as to give the woman the best service.

In some of the larger Lying-in services, we are developing specialists—but these young men have such a high regard for their ability, that their fees are prohibitive for the very class of people that need their care; those that are earning only from \$30 to \$50 per week. The housing conditions in our large cities make another factor that must enter into the practice of obstetrics, for living in two or three rooms with a bath and kitchenette, is not the environment in which to develop a family. Delivery at home under such conditions is almost out of the question, hence these people seek hospitals and sanitarium. It is just this class, the woman of small income, living in a small apartment—doing her own work, who wants to be independent, and maintain a social position, that is not taken care of by the practitioner, the Lying-in Hospital or the Maternity Center, but in the final analysis this woman is the great mother of the American public, and it is this woman whom we must reach and it is her type of doctor to whom we must give facility that he may be instructed along the right obstetric lines.

What can we expect from prenatal supervision? A better baby, an easier labor, and a healthier mother. What does this entail? First—continuous medical supervision, from the time the mother suspects pregnancy. Second—adequate hospital care for all primiparae, and all abnormal cases. Third—post partum care for a period of at least 2 months—subsequent to her confinement, with instruction as to the care and nourishment of her baby. This cannot be done unless the man in attendance on the prenatal clinic is also in attendance in the hospital, so that the sequence is preserved; or the attendant who has followed the woman with his ante-partum care has access to a sufficient number of beds in a properly supervised obstetric service to take care of his clientele.

In an ante-partum clinic which is affiliated with a hospital, the patient should be followed by the same man from the clinic, to the ward, or to a private room, then to the delivery room, and back again to the clinic for her postpartum care.

When these things can be accomplished both the practitioner and the clinician will be in a position to give better service. The one point that stands out in its paramount importance, and evaluates prenatal care is the continuity of such care, the sequence of service; for not only does this continuity benefit the patient—her attending physician, but all the future patients that he may have the privilege of attending. Without this sequence, his knowledge becomes of less value.

Take, as an illustration—the woman with a 3 or 4 plus Wasserman—who has been delivered of several still-born children. She applies to her physician in the hope of having a living child. A Wasserman is taken, and returns positive. She is placed upon a course of Salvarsan or Neo-Salvarsan, and gets her series of injections. After a negative Wasserman, she is told to become pregnant, and given another series of injections during her pregnancy. She is then delivered in a hospital, but either because of the fact that the clinic is not affiliated with the hospital, or because her physician has no recognition in this particular hospital, she is attended by some one else. Her child is still-born. A study of this child, its liver, its long bones, its blood—her placenta and her blood is imperative if we are to prevent another failure in her future pregnancies. Thus—by breaking the continuity of attendance, this patient is denied the advantages of scientific study, and the physician the training and the observation which he would have gained by such a study.

One cannot look over the records of such a series of cases, followed from the beginning of pregnancy—treated intelligently, checked up by scientific observation without feeling that any break in the continuity of attendance works ill for all of the parties concerned. The lack of adequate hospital accommodations for the pregnant and parturient woman is deplorable. In the Borough of Brooklyn with a population of nearly 2,500,000, *there are but 300 obstetric beds available in our hospitals.* Of these about 150 are in the Private Hospitals, and 150 in the city institutions. How, then, is it possible to give consecutive care to any great number of the 20,000 or more women who give birth annually to children in this Borough. *If we are to adopt the principle that hospital care should be advised for all primiparae, and should be insisted upon for all abnormal cases, it just can't be done. We must have greater hospital facilities or all of our prenatal propaganda goes for naught.*

Therefore—in conclusion I would urge *first*—that by the development of a few ideal clinics, we demonstrate to the public and profession, what prenatal study and consecutive attendance really means. *Second*—that instead of the maternity centres attempting to do prenatal work in an incomplete manner—as is the present state—that they devote themselves to spreading advice and propaganda. *Third*—that better facilities for

teaching obstetrics to both the undergraduate and the graduate are needed, and *Finally*—that as it is the public who is the chief recipient of the benefits of prenatal study, and hospital care, that they, through their political and financial aids, supply these needs.

THE INDICATIONS AND LIMITATIONS OF IRRADIATION IN OBSTETRICS AND GYNECOLOGY.*

By HERVEY C. WILLIAMSON, M.D.,
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IT is the purpose of this communication to place before you briefly the present day status of radio-active substances in our specialty. A new era was established when the beneficial results of irradiation on certain neoplasms was demonstrated histologically. The chief therapeutic agent in radio-active substances is the hard penetrating gamma ray. The softer beta ray is only available when radium is used in unfiltered glass tubes which are deposited in the tissue.

In order that we may express our ideas concisely, each topic will be considered separately.

UTERINE HEMORRHAGE.

There are two types of women to whom irradiation has been applied to control irregular profuse uterine hemorrhage; the first a young girl shortly after the onset of menstruation, the other the woman who is nearing or is beyond the menopause.

By giving a small dose of radium, about 500 or 600 mc. hours in a platinum capsule one millimeter thick applied into the uterine cavity, the young woman's hemorrhage can be controlled and menstruation subsequently established. This method has been successfully employed, but is it devoid of danger? In the control of this type of hemorrhage irradiation acts upon the ovarian tissues, particularly upon the follicles. Experimental and clinical data is now at hand so that we may attempt some evaluation with regard to subsequent pregnancy in this type of case. Bailey and Bagg have recently reviewed the literature and they conclude that it is questionable whether irradiation should be used to destroy the ripe follicles and leave the unripe ones injured but capable of developing. This is a serious proposition, as the unripe follicles may later become fertilized. Very definite results have been obtained in animal experimentation in this regard, and it is possible that in the human, abortion, still-birth, the birth of a monster, or a subnormal child may occur. Other methods of treatment, such as endocrine therapy, should be employed, and only the most stubborn cases treated by irradiation. There are two propositions; the

treatment by a small dose of radium or a dose sufficient to affect all follicular elements of the ovaries so that no ovulation or menstruation will occur. In the serious cases, really the only type suitable for such treatment, irradiation with from 1,200 to 1,500 millicurie hours by a platinum capsule one millimeter thick placed into the uterus is necessary to stop the bleeding for any length of time. We have seen instances when smaller doses have been given where the bleeding returned as severely as before, after a shorter or longer interval. This also has caused us to accept the idea of full irradiation.

The myopathic hemorrhage in women near or beyond the menopause offers a condition in which a carefully selected group are suitable for irradiation. Bleeding from the small senile uterus usually causes little difficulty as to diagnosis, but the larger uterus, in which the majority of this group fall, presents greater difficulty as the diagnostic curet may pass over a small area of adenocarcinoma. We have had a few experiences where the curettings did not show adenocarcinoma, yet the disease was present and continued to develop. If hemorrhage develops subsequent to thorough irradiation in this type of case, it is better to do a hysterectomy at once if no constitutional disability exists.

X-RAY IN OBSTETRICS.

The X-Ray has been suggested as a means of diagnosis in early pregnancy but as the bones are not sufficiently ossified to give a shadow before four or four and one-half months, it can be of little value. It could be used for differential diagnosis of masses in the lower abdomen larger than four and a half months pregnancy. Another use is for the mensuration of the bony pelvis, but as yet no absolutely satisfactory method has been advanced. The difficulty is to project the inlet which is tilted at an angle. Recently Thoms has reported a simple method. Spalding has reported a technic based on mathematical equations, and Bell has done some work with Fabre's method. If the mechanical difficulty of measuring the projected inlet is satisfactorily overcome, of what value it is? In only the borderline pelvis do we need this aid, as the absolutely contracted pelvis can be readily diagnosed, and the normal, obviously, does not need it. Its value is further limited by the fact that compressibility and malleability of the fetal head are not measurable by any known means. The borderline pelvis should be treated by a thorough test of labor with no vaginal or rectal examination and a low cesarian section of the Kronig type should be done if the head fails to enter the pelvis. One will be surprised to find that in a large number of cases the head will enter when labor is conducted on this basis. A number of important facts, however, may be learned from

* Read at the Annual Meeting of the Medical Society of the State of New York, at New York City, May 23, 1923.

X-Ray during pregnancy. Irregularities in the inlet, exostosis or pelvis tumors, twins, and certain fetal anomalies can be diagnosed. Horner has shown that intrauterine fetal death can be diagnosed by the overlapping of the cranial bones and the asymmetry of the head.

Is the diagnostic X-Ray dangerous to the fetus? Horner, who reports 250 cases, noted no physical or mental maldevelopment, but while malformations may not be produced, and it is nearly impossible that they should be late in pregnancy, repeated X-Ray exposures of a single patient might influence the lymphoid glandular tissue, especially the thymus gland. It is now well known that this gland is easily influenced by X-Ray in therapeutic procedures. As the thymus gland influences the future growth of the child it is suggested that careful follow-up observations are necessary for several years.

The best time to take a pelvic roentgenogram is when the woman is not pregnant, and if it is necessary to take it during pregnancy it is better to do so in the latter third.

IRRADIATION IN FIBROMYOMATA UTERI.

In well selected cases of uterine fibromyomata treatment by irradiation is a useful procedure. The chief advantage of this method of treatment lies in its simplicity and safety. Radium used in a dose of 1,500 millicurie hours in a platinum capsule one millimeter thick placed into the uterine cavity, under gas anaesthesia is usually sufficient to stop the bleeding and cause the gradual shrinkage of the tumor. Occasionally in large fibroids the "block" treatment over the ovary is given. Where X-Ray is used a patient can receive several treatments with little or no discomfort.

The selection of cases is of the greatest importance and must be done by a gynecologist.

The following types are not suitable for irradiation:

Pedunculated fibroids will not shrink to any extent from radium treatment. Their small base renders them nearly independent of the uterus and the effect of irradiation upon them. These freely pedunculated masses should be excised because the possibility of twisting of the pedicle with strangulation is always present. Fibroids complicated by other intra-abdominal pathological conditions, and especially ovarian tumors, must be treated by surgical intervention. Fibroids complicated by infected adnexa must not be irradiated, as peritonitis may develop from the congestion caused by this treatment. Fibroids causing pressure symptoms should be treated surgically, as the shrinkage following irradiation is too slow to relieve these symptoms. Submucous fibroids and polypoid growths of the cervix should always be removed surgically. Fibroids occurring during the child bearing period should be treated

by a myomectomy whenever possible. Fibroids in pregnancy, requiring treatment, should be removed surgically. Irradiation at this time might cause abortion.

From a survey of these limitations it is evident that the ideal case for irradiation is a small or moderate size, uncomplicated, intramural fibroid. It has been found that the most suitable case is a tumor not larger than a grapefruit. Under anaesthesia it must be carefully palpated for complications and the uterus curetted for diagnosis.

Many patients with large fibromyomata, which are causing disturbances due to their size, and in whom hemorrhage has caused a severe anaemia, can be greatly improved by irradiation sufficient to control this hemorrhage. Later the tumor can be ablated by a surgical procedure.

IRRADIATION IN CANCER OF THE UTERUS.

Cervical carcinoma is admirably suited to irradiation as it is usually localized in an area to which radium can be readily applied. Furthermore, metastasis does not usually occur beyond the true pelvis. If dependence is to be placed upon radium alone, the operator must have massive amounts of the substance, at least the equivalent of one gram, in order that cross firing may be conducted within different areas of the vagina and from the external surface of the body. However, it is possible, that the same result may be obtained with the amount of 100 milligrams and using X-Ray with a 200,000 volt machine. This is, of course, the method used in Germany today.

The early cervical carcinoma cannot be considered to be fully treated unless the pelvic tissues are thoroughly irradiated by the equivalent of a full skin dose. If the operator has but a small amount of radium he should give 3,000 milligram hours and then it is probably better to operate within a month. There is considerable difference of opinion as to the time for operation. Some men prefer to operate within one week, and we believe that it should be done then, or at the end of one month, as in the mid period there is edema and marked irritation of the pelvic peritoneum.

Borderline carcinoma is a term applied to certain cases in which the parametrium is involved, and they form an intermediate group between the early and advanced cases. Satisfactory results may be obtained by irradiation if, in addition to the cervical treatment with radium in a platinum capsule, the parametrium is thoroughly treated.

In very advanced cervical carcinoma what can we accomplish with radium? The sloughing and irritating discharge therefrom can be stopped, but the treatment will seal the surface, permitting the growth to extend inwardly. As a result of this ingrowth the patient will suffer

intense pain, and the outcome will be delayed. As this slight prolongation of life is accompanied by extreme pain, it is questionable whether full treatment with radium is justifiable.

The treatment of early recurrent carcinoma by radium has been satisfactory to an extent. This type of growth has been treated by implantation of the so-called "bare tubes," a technique popularized by Janeway, and by cross firing with large quantities of radium. The investigations of Bagg have shown that small quantities of emanation in bare tubes will influence an area of one centimeter in diameter, so they are usually placed about that distance apart.

The use of radium as a prophylactic against the recurrence of carcinoma following hysterectomy has been satisfactory. We usually radiate these cases by a massive dose placed in the vagina in the "bomb," a heavy lead applicator in which one gram of emanation is placed, also by external application of radium or the X-Ray. If radium is to be used for this purpose a long cuff of vagina must not be removed at operation, otherwise the "bomb" treatment cannot be given.

Adenocarcinoma of the body of the uterus should be treated by thorough irradiation of the uterine cavity and then a surgical removal four weeks later if possible. If the patient is not a good surgical risk, full pelvic irradiation should be given.

Carcinoma of the lower part of the vagina and external genitalia offers a difficult problem for treatment. We have treated these growths by burying small tubes of emanation (bare tubes) in the tumor and supplementing this by the use of filtered radium from without. The inguinal glands have been irradiated by the "block" and in favorable cases, dissection, six or eight weeks later. At this time weak emanation tubes were placed in the wound about one centimeter apart.

The use of radio-active substances has filled a definite need in gynecology, and enough evidence is now at hand to know that by itself and combined with surgery, it is invaluable in the treatment of cancer.

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REPORT OF THE COMMITTEE ON THE COMPUTATION OF OCULAR DISABILITY RESULTING FROM INDUSTRIAL INJURY OR DISEASE.*

By ALBERT C. SNELL, M.D., Chairman,
ROCHESTER, N. Y.,

ARTHUR J. BEDELL, M.D.,
ALBANY, N. Y.,

and

WALTER B. WEIDLER, M.D.,
NEW YORK CITY.

THE committee on "computation of ocular disability," appointed by the Section on Eye, Ear, Nose and Throat of the Medical Society, State of New York, herewith submits its final report with two recommendations.†

I. The committee has complied with the instructions of this section that its final report be withheld until the report of a similar committee of the A. M. A. should be made and considered. The report of the committee of the section on Ophthalmology of the A. M. A. on "Estimating Compensation for Eye Injuries," is published in the Transactions of that section for 1922. Your committee has carefully studied this report and recommends that it be rejected on the following grounds:

(a) It is not consistent with the expressed provisions of the New York State Workmen's Compensation Law and can not be brought into harmony with the provisions of this statute.

(b) The basic principle, used in this report, that the three essential elements of vision may be regarded as having a relative fractional value can not be supported by any mathematical, philosophical, or economic consideration.

(c) Computations of ocular disability made in accordance with the method as set forth in this A. M. A. report are inadequate, below the average suggested by students of visual economics, and manifestly unfair.

II. The committee finds that the present revised New York State Workmen's Compensation Law, as it relates to visual disability, is based on sound economic principles. Your committee, therefore, recommends secondly that this section give its approval to a method for computing compensation for ocular disability which shall be consistent with the principles and provisions of the N. Y. State statute. The committee presents the following statement of fundamental principles of visual economics and a method for computing compensation consistent with these principles and in harmony with the New York State Workmen's Compensation Law.

* Read before the Section on Eye, Ear, Nose and Throat at the Annual Meeting of the Medical Society of the State of New York, at New York City, May 23, 1923.

† These two recommendations were approved by the Section on Eye, Ear, Nose and Throat.

THE COMPUTATION OF OCULAR DISABILITY.

PART I.

Basic Principles.

Section 1. Permanent total *visual* disability is equivalent to permanent total disability.

Section 2. Vision is a complex act in which there are three indispensable, co-ordinating, functioning elements, (A) perception, (visual acuity), (B) allocation (field vision), and (C) muscle function.

Section 3. These three co-ordinating, essential constituents of vision stand in the relation to one another as do the mathematical factors of a product.

Section 4. The measurement of each of these essential factors of vision is correctly determined by using accepted standards and instruments of precision. When thus measured the numerical, co-ordinate value of each factor shall be determined as follows:

ures the concentric area of the remaining field determined by perimetric measurement.

For muscle function—The co-ordinate numerical value of muscle function shall be determined on the principle that the loss of binocular single vision is equivalent to the loss of use of one eye. The numerical value of this factor is 0 when there is an irremediable diplopia, and when there is partial diplopia, it is a fraction, proportionate to the area of motor field in which there is persistent diplopia.

Section 5. Herewith is annexed a method, presenting rules, tables and a graph based on the principles enunciated above for guidance in determining ocular disability.

PART II.

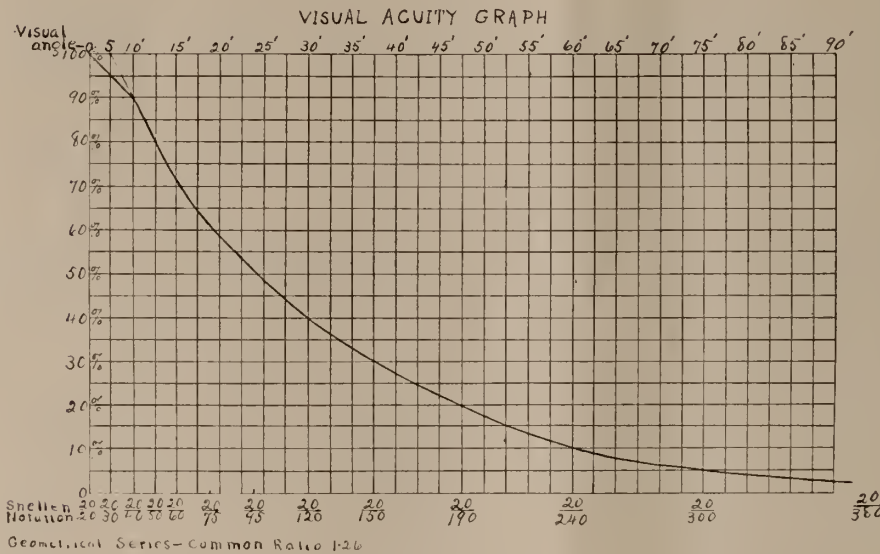
Method for Determining Ocular Disability.

Section 1. Primarily, ocular disability shall be determined for *one eye* by computing the degree of functional efficiency or usefulness of the three essential co-ordinating factors of vision—Visual perception (acuity of vision), Allocation (field vision), and Muscle function.

Section 2. Secondly, ocular disability shall be determined by considering the co-ordinate relation of both eyes. Muscle disturbances affect visual efficiency, for the most part, by causing diplopia. Also a serious loss of vision involving both eyes produces a greater degree of ocular disability than does the serious loss of one eye.¹

Section 3. In order to determine the degree of functional efficiency of vision as a whole, measure each factor separately, and each eye separately.² The percentage of loss of efficiency or loss of use equals the ocular disability.

Section 4. The numerical (percentage or coefficient) value for the various determined amounts of function of each factor is found by consulting



For visual acuity—The total value for full normal visual acuity shall be an integral factor. Its total or partial numerical value shall be determined by using test-types, constructed in conformity with the accepted Snellen standard, and in geometrical progression which gives a constant, proportionate, and uniform ratio for each gradation.

For field vision—A square root value shall be given to this factor. The primary numerical value for any part of the field shall be proportionate to its concentric contraction, and the co-ordinate numerical value for this factor shall be the square root of that quantity which meas-

¹ The N. Y. statute definitely fixes the rate of compensation for the loss of *one eye* on the basis of 66⅔ per cent for 128 weeks, but considers the loss of use of *both eyes* as a permanent total disability (a life-time disability).

² That is, at first consider the condition of one eye, testing first visual acuity, then form field, and then muscle function. If injury or disease involves both eyes then find best visual acuity, amount of field and state of muscle function for the other eye also. Record these measurements separately.

the following tables, and in addition there is a graph for visual acuity.

For numerical value of visual acuity see Table I and graph.*

For numerical value of field see Table II.

For numerical value of muscle function see Table III.

TABLE I.

VISUAL ACUITY.

Showing the Corresponding Fractional Value of the Snellen Expression Based on Equal Gradations—Equal Ratios—from 20/30 to 20/300.

Snellen Expression	Fractional Value	Value of Visual Acuity in Percentages
20/20	10/10	100
20/30	9.5/10	95
20/40	9/10	90
20/50	8/10	80
20/60	7/10	70
20/75	6/10	60
20/100	5/10	50
20/120	4/10	40
20/150	3/10	30
20/200	2/10	20
20/240	1/10	10
20/300	0/10	0

TABLE II.

FIELD VISION.

Showing the Corresponding Percentage of Field Based on Concentric Radial Contraction, and Its Co-ordinate Value

Contraction to	Percent of normal field	Co-ordinate value of field
65°	= 100. square root of	= 1.00
60°	= 92. square root of	= .96
55°	= 83. square root of	= .91
50°	= 75. square root of	= .86
45°	= 67. square root of	= .81
40°	= 59. square root of	= .76
35°	= 50. square root of	= .71
30°	= 42. square root of	= .65
25°	= 33. square root of	= .58
20°	= 25. square root of	= .50
15°	= 16. square root of	= .40
10°	= 8. square root of	= .28
5°	= 0. square root of	= 0

TABLE III.

MUSCLE FUNCTION.

Showing the Percentage Area of Single Binocular Vision in Motor Field Where Muscles of One Eye Are Paralyzed.

External rectus, right or left	.50 per cent
Internal rectus, right or left	.50 per cent
Superior rectus, right or left	.50 per cent
Inferior rectus, right or left	.50 per cent
Superior oblique, right or left	.50 per cent
Inferior oblique, right or left	.50 per cent
Oculo-motor paralysis	.10 per cent

*For graph see page 344.

Section 5. Total visual efficiency is the product obtained by multiplying together the determined numerical value of each of these factors. Note the following:

(a) When only one of the three essential functions of one eye is partially or totally damaged the visual efficiency is equivalent to the numerical value of that factor alone. For example, if visual acuity only is damaged, total visual efficiency is the same as the numerical value of acuity of vision.³

Thus, should visual acuity be found to be 20/40, no disturbance of field or of muscle function, the total degree of visual efficiency would be the same as the numerical value for visual acuity, which is 90 per cent, 10 per cent disability. 20/60 = 70 per cent visual efficiency, 20/100 = 50 per cent visual efficiency, etc. Should visual acuity be 20/190,⁴ 20 per cent vision, visual efficiency would be nil (0), and the disability 100 per cent.

If field alone is damaged, the numerical, co-ordinate value of this factor, as is shown by Table II, is the determined percentage of visual efficiency.

Thus should field be contracted to 35 degrees concentrically (equivalent to a hemianopsia), with no disturbance to visual acuity or to muscle function the total visual efficiency would be 71 per cent, etc. Should field be contracted to 5 degrees, total visual efficiency would be 0, and disability, 100 per cent.

If muscle function alone is damaged, no disturbance to acuity or to field, the numerical co-ordinate value of this factor, as shown by Table III, is the determined percentage of visual efficiency.

Thus should the external rectus muscle be permanently paralyzed, visual efficiency would be 50 per cent. Should binocular single vision be completely lost in all parts of the motor field, visual efficiency would be nil (0), and the disability 100 per cent.

(b) When two or all three of the essential functions of one eye are damaged the visual efficiency is found by multiplying together the determined numerical value of each damaged function. The product of these will be the visual efficiency. For example, should both visual acuity and field be partially damaged at the same time, the visual efficiency is determined by multiplying together the numerical co-ordinate value of the two damaged functions.

Thus, should visual acuity be reduced to 20/60 and field contracted to 30 degrees, by consult-

³ This step alone will solve 90 per cent of all ocular compensation cases, as fully this number of cases have only visual acuity damaged. All other cases are uncommon.

⁴ The N. Y. Workmen's Compensation Law states that for loss of "eighty per centum or more of vision of an eye" compensation shall be the same as for loss of the eye, therefore 20/190 visual acuity which is 20 per cent vision is regarded as a total loss of visual efficiency.

ing Table I we find that 20/60 has a co-ordinate factor value of 70 per cent, and by consulting Table II a contraction of field to 30 degrees is found to have a co-ordinate factor value of 65 per cent, total visual efficiency is determined to be $.70 \times .65$ which is .455, or a visual efficiency of 45.5 per cent, or a disability of $54\frac{1}{2}$ per cent.

(c) Should all three essential functions, visual acuity, field, and muscle function, be partially damaged, visual efficiency is determined by multiplying together the numerical, co-ordinate value of each damaged function.

Thus, should we find in a given case that visual acuity was reduced to 20/40, field contracted to 35 degrees and the external rectus muscle paralyzed, by consulting Table I we find that 20/40 has a co-ordinate factor value of 90 per cent, that by consulting Table II a contraction of field to 35 degrees has a co-ordinate factor value of 71 per cent, and that by consulting Table III an external rectus paralysis has a factor value of 50 per cent; therefore, visual efficiency would be $.90 \times .71 \times .50$ which is .3195, or a visual efficiency of 32 per cent, a disability of 68 per cent.

(d) It is obvious if any⁵ of these essential factors has a numerical value of nothing (0), there is a total loss of visual efficiency and the ocular disability is 100 per cent.

Section 6. Disabilities involving both eyes shall be computed by adding together the determined disability of each eye when the binocular injury is not serious, but when such disability equals or exceeds 70 per cent in each eye the total disability shall be computed in proportion to the increased seriousness of the loss in efficiency and shall approximate that computed for total general disability or total incapacity.⁶

Section 7. In cases of traumatic aphakia, when diplopia is not present, no essential function is completely and permanently lost; therefore, efficiency shall be determined by the same principles apposite to other cases, but, in view

⁵ A reduction of visual acuity to 20/200 or less, which is a loss of 80 per centum of vision, is industrial blindness. The loss of field to 5 per cent central contraction is also industrial blindness and a permanent complete diplopia is the loss of binocular single vision which is likewise the total loss of use of one eye. In each of these cases the disability is 100 per cent for one eye.

⁶ When both eyes are seriously damaged, even with some useful vision remaining, the ability of such an employee to compete is seriously damaged and consideration must be given to the probable chances that such a man has of being able to get a job.

of the fact that in these cases, the usefulness of visual acuity and of binocular single vision is suspended though of potential value, their efficiency shall be computed by dividing their separately determined efficiency by $\frac{1}{2}$.

Example 1. Traumatic cataract completely absorbed or removed by operation, with a +10. S.+2. Cy. Ax. 180, Vision = 20/20. No muscle disturbance, no diplopia and a full field. Dividing the numerical value of visual acuity, 20/20 which is 100, by 2 = 50 per cent. Dividing the numerical value of binocular single vision by 2 = 50 per cent. $0.50 \times 0.50 = 0.25$; 25 per cent efficiency or 75 per cent disability.

Example 2. Same conditions as above, except that visual acuity with glasses = 20/100, the numerical value of visual acuity then is 60 per cent. Dividing this factor by 2 = .30, and taking a half value for the suspended binocular vision, the efficiency would be $0.30 \times 0.50 = 0.15$, 15 per cent efficiency or 85 per cent disability.

PART III.

Secondary Points To Be Observed in Computing Ocular Disability.

Section 1. In determining functional ocular disability, disfigurement is not considered in these computations. The New York statute allows additional compensation for disfigurement, therefore all such conditions should be reported.

Section 2. Loss of function to most of the non-essential functions of vision, such as disturbances of the color sense, depth perception, adaptation to light and dark, are included with functional brain disturbances or else are included with the loss to the essential factors of vision; therefore, these conditions do not require separate consideration. But certain disturbances of the lids or conjunctiva, such as symblepharon, ectropion, entropion, lagophthalmos, and epiphora, when not included under disfigurement, should be recommended for additional compensation.

Section 3. Disability should not be computed until all adequate and reasonable operations and treatments have been employed, and the amount of the permanent disability should not be determined until sufficient time has intervened to allow for the development of sequelæ or to allow for the subsidence of all inflammatory symptoms.

Section 4. Visual acuity should be tested both with and without the use of glasses, and it should be tested both for near and for distance and these results recorded.

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THE ROLE OF THE GENERAL PRACTITIONER.

The refinements of specialization have disturbed the comfortable balance of the general medical profession until discontent dominates those who have not added letters of qualification to their medical degree.

The general practitioner is ashamed of his classification and many specialists have added fuel to the flame by talking down to their less limited fellows.

There are more specialties than there are organs, or functions, or secretions, or excretions, or regional subdivisions. Some are almost as limited as indicated by a recent advertisement in a daily newspaper—"Situation wanted by a young man handy with a screw driver."

Service is declined by men who "do not do this" or "do not do that" implying that there is a field in which they do employ their talents in a superior manner. So that the approximate ration of one physician to seven hundred and eighty persons in the State of New York is greatly increased and the load of the general practitioner is commensurately heavier.

While it is possible to establish a minimum fee, and while no one now denies the right to as great a material reward as is decently possible to the expert who has given his life to the perfection of his knowledge and of his technique, there really is an humanitarian side to the question which may ultimately dictate limitations.

A well rated patient, being referred to a group of specialists in some manner resembles a bottle of certified milk. The psychiatrist, the ophthalmologist, the otologist, the rhinologist, the laryngologist, the radiologist, the special or general surgeons, each one armed with a Chapin dipper, takes off portions of cream until there is nothing left for the general practitioner but skimmed milk, and while the specialist grows fat, the general practitioner starves through protein indigestion.

While a high degree of technical skill may deserve high return, the ranks of specialists are crowded by men whose title is recognized, because of the skill acquired through one many times repeated manœuvre, behind which stands no breadth of vision, or discriminatory ability, and who demand a disproportionate reward. Too often one hears of a young hospital graduate selecting a special line following the inspiration of a specially skillful visiting or consulting physician. He seeks first a position of assistant to a specialist and long before he has learned more than the gestures of his chief, he announces himself as possessing special qualifications.

Fee splitting furnishes no satisfying balm to the discontent of the general practitioner, probably because the practice involves the elements of

deception and therefore is not strictly honest. While the high minded internist likes the increment which he reasons he has truly earned, he does not enjoy a subterranean method. No internist likes to sell an operation and no operator likes to buy one. Should it not be the rôle of the internist to manage the whole affair with his cards on the table? Should he not say: "The surgeon's fee will be so much, the internist's fee for assisting or for giving an anæsthetic will be so much. The operation is necessary. The decision rests with the patient or with those who are entitled to assume the responsibility." Following such a procedure there can be no re- crimination.

The influence of a great university, backed by a great financial foundation, in establishing a clinic for middle class people who, under ordinary conditions, are able to pay for medical attention, under the plea that they do not get the best service, and are embarrassed because competent specialists are beyond their financial ability, seems in no way to have furnished a helpful solution.

As is usual with clinics, their patrons are not the ones their ideal is supposed to serve. Extensive advertisement has attracted to supposedly superior abilities, many people who were very ably served by their own physicians. The clinic advertises while the doctor may not, the clinic cuts under the doctor's modest fee, and then, when the clinic is through with the patient, gives him the names of three or four physicians in his neighborhood, who may, perhaps, have registered for these benefits.

An unhappy situation is apparently created with no great social benefit, and of no great medical value except in the experience of the physicians on the staff of the clinic.

We do not recall a protest ever made by the medical profession against high educational standards. The general spirit of physicians everywhere rises to high ideals. It is unnecessary here to cite detailed instances. We all admit that the profession is altruistic, is idealistic, and is eagerly awake for service, regardless of material reward. We see no group of physicians advocating place making legislation, thinking immediately of themselves, or of a machinery of political potentiality. All medical legislation which has group endorsement is designed for the protection of the public against the sort of quackery or jobbery that is inimical to public health. Public health having now a recognized economic value, there naturally arise from time to time, immature, meddlesome, featherbrained reformers whose enthusiasms are often tempered by moral vulnerability. The profession is forced to take the field against such people and must endure the odium of standing for self interest when in re-

ality the position is one entirely in defense of the public. Sub standard cults must be regulated, and those who practice them must either be brought up to higher educational planes, or they must be driven from the field.

To best achieve the highest ideals of public service, we must have a strongly united profession, and one in which there must be responsive goodwill between every class of practitioner. Many times the distinguished leader of a specialty has climbed so far beyond the ordinary practitioner that he has lost his sympathy for general questions and is concerned only in his own personal attributes. He has lived through his struggles and having attained an eminence is interested only in holding it.

May it not be wise to suggest some regulation of professional life which all physicians will sentimentally and ethically respect and which may bring about a more comfortable adjustment of values?

While we realize the burden of seven years of compulsory education upon the young candidate for medicine, and that he makes the greatest investment of money and time and effort made by any entrant into any form of professional or business life, we would not perhaps, shorten it by one day, but we would make his course more medical from the very beginning of those seven years. As much mental training may be acquired from such mathematics as are required for a sufficient knowledge of physics and chemistry, as may be secured from unrelated courses. Let the student concentrate on chemistry and physiology and anatomy and biology and upon the fundamentals of pathology very early in his course.

While we believe that all agree that our students of medicine should, as well as all other students, have as liberal education in good citizenship, in our national history, in contemporaneous history, and every qualification for community leadership, let us have him study the history of medicine rather than the history of the ancients. Let us give large emphasis to the study of psychology, both in theory and application because it is one of the things he will greatly need all through his career. Teach the student sociology, teach him ethics. How many of us have learned our medical ethics through sad and needlessly painful and distressing experience? Teach him the business of medicine. The medical graduate entering general service at twenty-seven with no knowledge of how to finance himself, unless perchance he has worked his way through, is further handicapped by having been obliged to spend many hours upon the traditional mind developing subjects that might better have been given to lessons in practical business management. Especially emphasize the minor problems that may daily confront the young practitioner. Young men are likely to be over

impressed by the extraordinary or rare cases that the professor describes and which they may never meet. Teach him rather the tremendous importance of the proper management of the diseases of childhood with their sequelæ of permanently damaged organs carrying such heavy responsibility for the leaders of our mortality statistics. Develop in him alert senses, give him clinical work as early as possible. Student nursing may be a most valuable experience. Exercise his sense of touch, of hearing, of sight, and smell, teach him to coordinate his observations. Teach him diagnosis from every angle. Teach him to stand on his own feet and to properly evaluate the help of the laboratory and of so-called exact mechanisms. When he becomes a hospital interne, lessen his handicap and his impatience by paying him a living salary.

Send him out an internist, no matter if he has shown evidence of specially skillful hands. Give him a few years, shall we say ten, to digest his theories, to digest the impressions he may have inspired from his brilliant teachers, to adjust himself to life, to gain a breadth of vision from contact with all the varied disease reactions which will demand his attention, to learn his weight in the social scale.

Inspire him with the idea that the general practitioner has unlimited possibilities, that he may in truth be a general, commanding an army of helpers which includes the neurologists, the general and special surgeons, the radiologists, the laboratory workers, all ready to help him to solve his problem or play their special part in his operation. Inspire him with the idea that he is to make the diagnosis and that the others are to be his assistants to carry out his treatment.

While a condition of such isolation may arise that a life-saving operation must be attempted regardless of equipment or assistance, abdominal section having been successfully accomplished with such instruments as a hunting knife with fish line for ligature and suture, and fish hooks for needles, the rôle of the young internist should include calling skilled and mature service for major surgical operations. If we are to weigh youth and inexperience as handicaps against undertaking surgical risks, we should also expect age and experience to play in their own pastures and to respect all professional fences. We should not, more than once, have the experience of meeting a prominent gynecologist at the bedside of a scarlet fever patient, or a well reputed rhinologist engaged in an obstetrical delivery.

At the end of ten years, let the young internist go to school again, if you please, to some post-graduate institution where he may qualify to practice some special line of work that his ten years may have drawn him toward, either through fortuitous circumstance, or deep seated interest.

He may then be potentially an able specialist, but he should have the certification of such an institution before he should, by common consent, be permitted to announce himself as specially qualified. We should not permit him to disqualify himself for medicine by entering a school to qualify himself for a specialty until he has served a real apprenticeship in the broader field.

Might not such a plan develop a greater number of the fine, general practitioners which the profession needs, and a far better class of specialists than we now have? N. B. V. E.

SAVING THE HONOR OF THE PHYSICIAN'S TITLE.

Time was when the title "Professor" carried dignity with it. It denoted one who was or had been the occupant of a chair in the faculty of a college, and who was learned and scholarly. It was a title which commanded respect and carried distinction.

Now, alas, it is bestowed indiscriminately upon ordinary teachers in primary schools, leaders of brass bands, pianists in saloons and repairers in garages! It not only denotes no prestige, but it is employed even as a term of derision.

The title "Doctor" is fast drifting into a similar position. Any practitioner of a fake science or of a jazz cult calls himself "Doctor" with impunity. In reality, "Doctor" means "learned," and is a title belonging rightfully only to one who has secured a degree, after passing examinations at the close of prescribed study in an institution of real learning, accredited by the State Educational Authority.

But, so far have we drifted, with our shallow thinking, our ready credulity and our preference for the mystery of the ignorant over the real science of the learned, that the title is in imminent danger of being accepted merely as a handle by which to address anyone who puts up a pretense of any kind.

The degree of D.D. (Doctor of Divinity) has been conferred in very many well-known instances upon any clergyman whose friends asked for it, regardless of the fact that he is very limited intellectually, and by no means learned.

The degrees of LL.D. (Doctor of Laws) and Litt.D. (Doctor of Literature) have not infrequently been conferred upon wealthy men simply because of their lavish gifts to institutions of learning, or out of pure good nature.

The degree of Ph.D. (Doctor of Philosophy) has been granted to some men as a graceful compliment; and, in at least one well-known modern instance, the recipient runs "Dr." before his name and writes knowingly on medical and cognate subjects in current newspapers.

In a host of instances, barbers like Munyon,

patent medicine vendors, vitapathists, naturopathists and somatopathists have hoisted a "Doctor" sign, sometimes after conferring the pseudo-degree upon each other.

The hour has come, therefore, when the one who is always meant by everybody when the words "a Doctor" are used—the Doctor of Medicine—shall take measures to emerge from the mixed crowd and adopt a distinctive symbol, that the pretenders shall no longer, wittingly or unwittingly, deceive the people.

Two symbols seem available. One expedient would be to write the initials of our Latin degree (M. D.), after our names on all occasions. This seems cumbersome and a trifle pedantic. The other expedient seems to be to use "Dr. (Med.)" before the name, a sufficient, concise and modest statement of fact. This form is used commonly on the continent of Europe and we would do well to adopt it. In addition, unwarranted use of it would be fraud, and the user would be easily prosecuted in a court of law.

A. W. F.

Correspondence

The Council at a meeting held in Albany, April 20, 1922, moved, seconded and carried:

That the Journal be not used in any way suppress any expression of opinion; and that its correspondence columns be open for all proper communications; and that "proper" communications will be deemed those which are not slanderous or libelous in their nature.

July 25, 1923.

Editor of the NEW YORK STATE JOURNAL OF MEDICINE:

DEAR DOCTOR: I read with interest a letter published in your issue of July from Dr. Frederic Bierhoff, relative to his experience with the Internal Revenue authorities in connection with the narcotic tax nuisance. He escaped better than I did. My experience with this department is somewhat similar, only in a greater degree. Through an oversight on my part I neglected to put my application in for my license until July 13, 1923, when I should have applied on or before the 30th of June. In return I received from the department notification to the effect that having failed to fill the necessary forms within the period specified I had incurred a liability of 25 per cent penalty and \$5 as an offer, in compromise in lieu of prosecution, making a total together with cost of license of \$8.75. The most ridiculous part of it was that my offer of \$5 compromise was to be sent to the Commissioner in Washington for adjudication, and if he thought the offer a favorable one he would recommend the granting to me of a license. The wording of the communication would indicate that those gentlemen were our masters in place of our scrvants. It was exceedingly peremptory in manner and would almost make us believe we were living in Russia, in place of our beloved United States. This method of fining a physician twice as much as the license called for, together with the license itself, should not be tolerated by the profession. This particular condition of affairs should be brought forcibly before our state organization and from thence brought before the national organization with a request that a protest be made at Washington to the end that the profession be relieved from the autocratic methods pursued by the department in question.

Yours very truly,

B. J. LEAHY.

July 30, 1923.

Editor of the NEW YORK STATE JOURNAL OF MEDICINE:

DEAR DOCTOR: Have just read Dr. Frederic Bierhoff's letter stating his experience with the Collector of Internal Revenue (Narcotic Bureau). They let him off easy considering the times "past due."

My own experience this year was: being away the last week in June and not getting home until the evening of July 2nd, I proceeded to take an inventory of narcotics on hand, sent it with certified check *next day*, July 3d, by mail. Under date of July 7th, I was fined 75c. which I had to pay—see Revenue Collector's letters attached—I have always tried to be a *reputable* physician and law-abiding citizen, but missed a cog this time it seems.

C. G. STROBEL, M.D.

July 11, 1923.

CHARLES G. STROBEL,
Dolgeville, N. Y.

SIR: This office is in receipt of your statement relative to your delinquency under the Harrison Act for the fiscal year 1924. It is noted that you state that you were absent from the City up until July 3d. Renewal blanks were mailed from this office on May 15th and every taxpayer had sufficient time in which to file his returns on or before July 1st. Absence is not considered a reasonable excuse for not filing returns within the prescribed time. Kindly forward the extra assessment of 75c. by return mail.

Respectfully,

J. W. CLARKE, *Collector.*

By BURTON D. MURPHY, *Deputy Collector,*
Narcotic Desk.

July 7, 1923.

CHARLES G. STROBEL, M.D.,
82 S. Main St.,
Dolgeville, N. Y.

SIR: Special taxpayers are required to file return and pay tax before engaging in a taxable business, occupation or pastime. Where return is not filed during the calendar month in which liability is first incurred, a penalty equal to 25 per cent of the tax attaches automatically.

Through your failure to file return as Practitioner, dispensing narcotic drugs for the period from July 1, 1923, to June 30, 1924, on or before July 1, 1923, you appear to have incurred liability to a penalty of \$75, which sum should be forwarded to the Collector unless you disclaim liability. If you deny liability, a statement setting up the facts under which you claim exemption will receive consideration.

This 25 per cent penalty, which is a civil obligation, must not be confused with the penalties provided under the criminal laws for engaging in a taxable occupation without having paid tax. The payment of the 25 per cent penalty in no way relieves the violator from prosecutions under the criminal law, though the payment or refusal to pay the 25 per cent penalty may be given consideration in determining the intent of the taxpayer.

Remittance of taxes or penalties should be in the form of check, P. O. or express money order payable to J. W. Clarke, Collector. Checks in payment of special taxes should be certified.

The extra copy of this letter, which is enclosed, should accompany your answer.

Respectfully,

J. W. CLARKE, *Collector.*

By BURTON D. MURPHY, *Deputy Collector,*
Narcotic Section.

July 5, 1923.

Editor of the *NEW YORK STATE JOURNAL OF MEDICINE*:

DEAR DOCTOR: The following communities have been reported to the Committee on Medical Economics as being without physicians, and at the same time in the opinion of nearby physicians capable of supporting a physician.

Monterey, Schuyler County.
Townsend, Schuyler County.
Tabery, Oneida County, good prospect.
Otisco, Onondaga County.
Center Brunswick, Rensselaer County.
Clarence Center, Erie County; doctor wants to retire.

Very sincerely,

E. MACD STANTON, M.D.

AN APPEAL FOR INFORMATION ON MATERNAL WELFARE

The Committee on Maternal Welfare of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons is anxious to procure accurate information as to the progress which each State is making in the matter of Maternal Welfare in order to formulate a report for our annual meeting in Philadelphia, in September.

A preliminary programme was published in the issue of the *American Journal of Obstetrics and Gynecology* for June, 1923, which it is hoped may be a suggestion of an outline for national work among all organizations which have a common basic line of endeavor including Medical Societies, Departments of Health, and Commissions of Social Workers.

We shall be under many obligations if you will be kind enough to send at your early convenience a brief synopsis of the results accomplished in your State, and most important, if possible, a contrast of the record of the clinics or regions where patients have been privileged to have pre-natal care with the statistics of the community in general where no supervision has been afforded the prospective mothers.

These it is planned to have incorporated into the completed survey to be presented to the Association and to be published in the Annual Transactions later on.

Dr. Henry Schwarz, St. Louis; Dr. George W. Kosmak, New York City; Dr. George Clark Mosher, Chairman, Kansas City.

MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

July 20, 1923.

EDWARD LIVINGSTON HUNT, M.D., *Secretary,*
Medical Society of the State of New York:

DEAR DOCTOR: The Medical Society of the State of Pennsylvania will hold its Seventy-third Annual Session in Pittsburgh, October 2, 3 and 4, with the Scientific Program beginning Tuesday morning, and including Thursday afternoon. We will be pleased to have in attendance upon any of our Scientific and social sessions members of your State Medical Society. Any of your members in attendance will be offered the opportunity to register and will be provided with a badge giving them the courtesies of our Scientific and Social Sessions.

We should also be pleased to introduce at our opening general meeting, Tuesday morning, October 2, and our House of Delegates, any duly accredited delegate from your Society.

The preliminary program of our Session will be published in the August number of the *Atlantic Medical Journal*.

We respectfully suggest that you request the editor of your medical journal to extend through the columns of your *JOURNAL* the above invitation to your members.

Sincerely yours,

WALTER F. DONALDSON,

MEDICAL WOMEN'S NATIONAL ASSOCIATION.

The Ninth Annual Meeting of the Medical Women's National Association was held in San Francisco, June 25th and 26th, in conjunction with the American Medical Association Meetings, Dr. Grace N. Kimball, President; Dr. Kate Campbell Mead, President-Elect. At the open session, Monday evening, Dr. Ray Lyman Wilbur, President-Elect A. M. A., delivered an eloquent and inspiring address on the Power of the Minority.

At the open session, a Five-Year Program was presented by the Executive Committee and Council, and was adopted. This Program is under Five Heads:

1. Continuation of the Work of the Committee on Medical Service, American Women's Hospitals; Dr. Esther P. Lovejoy, Chairman, New York.

2. Federation of Medical Women's Organizations with the Medical Women's National Association, under Organization Committee; Gertrude A. Walker, Chairman, Whitefield, N. H.

3. Public Health, co-operating with A. M. A. Council on Health and Public Instruction, Hygiene, and Women's Foundation for Health, etc., Elizabeth B. Thelberg, Chairman, Poughkeepsie, N. Y.

4. Committee for Medical Opportunities for Women. Sue Radcliff, Chairman, Yonkers, N. Y. Internships for young Graduate-Members of the M. W. N. A., in Hospitals conducted by the American Women's Hospitals; in Missionary Hospitals and in Hospitals in U.S.A., as well as opportunities for private practice. Service on Boards of Health, Government Appointments, etc.

5. Publicity for the Medical Women's National Association through the Bulletin and an Editorial Staff, consisting of the President and Executive Committee, President-Elect and Editor-in-Chief. Grace N. Kimball, Poughkeepsie, was appointed Editor-in-Chief.

The *Bulletin*, published quarterly last year, will be continued and sent to all members of the N. W. N. A.

An Amendment to the Constitution was passed, providing for Group Membership. This was in response to proposals for Federation made last year by certain State Societies of Medical Women.

Under the Group Membership Amendment, organizations of women whose basis of membership conforms to that of the M. W. N. A., viz., membership in the A. M. A., may join the National as Group Members:

Kansas State Medical Women's Society,
New York State Medical Women's Society,
Connecticut State Medical Women's Society.

Portland, Ore., State Medical Women's Club, affiliated through their representatives at the San Francisco meeting.

The Nebraska, Los Angeles, and New England Medical Women's Societies signified their desire to take action regarding affiliation.

A most interesting exhibit, Scientific and Educational, showing the work of the American Women's Hospitals in Greece and Serbia was given. Twenty hospitals and a large number of dispensaries are being run in Greece alone, under the directorship of Dr. Mabel Elliott, New York; Dr. Esther P. Lovejoy, Executive Secretary.

Four periods on the A. M. A. Moving Picture Theatre were assigned to the National—a film of work in Greece, Crete, and the Quarantine Work on Macronessi Islands, shown by Esther P. Lovejoy; slides of Hospital and Surgical work in Serbia, by Dr. Etta Gray.

Dr. Kate Campbell Mead, of Middletown, Conn., was installed as President. Dr. Katherine C. Manion, of Port Huron, Mich., was chosen President-Elect.

The following Officers were elected:

First Vice-President, Dr. Martha Welpton, San Diego; Second Vice-President, Dr. Marjory J. Potter, San Diego; Third Vice-President, Dr. Florence W. Duckering, Boston, Mass.; Secretary, Dr. Jessie W. Fisher, Middletown, Conn.; Treasurer, Dr. Rosa H. Gantt, Spartanburg, S. C. The 1924 Meeting will be held in Chicago, Ill.

NOTES ON NURSES AND NURSING.

NURSING AND CARE OF THE SICK BY NATIVE ALASKANS BEFORE THE WHITE MAN CAME, by Deaconess Harriet M. Bedell, St. Stephen's Village, Alaska.

The vastness of the territory with its diversity of climate and uneven spread of vegetation makes it difficult to write in a general way of any phase of Alaskan life. The natives, too, differ.

The Esquimaux along the Arctic and sub-Arctic coasts with strong Mongolian characteristics are very different from the Indians in the interior—real Indians, belonging to the Continental Athabaskan tribes. There being no timber along the Arctic coast, the Esquimaux use the occasional driftwood on their shores for building huts. They also live in ice houses (igloos) and dwellings made of the huge petrified bones of the extinct mastodon.

The Yukon basin, rich in spruce and birch timber, provided material for bracing up their early underground homes (dugouts) and later for their cabins which they chinked with moss to keep out the cold of the long, dark winter. All these conditions affect the life of the people.

On the Yukon river a hundred and sixty miles from where it touches the Arctic circle, is a very old native village, Stephen's Village, named after an old chief.

The Indians gathered here for the winter seasons long before the coming of the white man. Here was a sheltered center in their hunting ground; here could be found plenty of wild berries; and here was abundance of timber for fuel and dwellings.

They lived almost entirely on a meat diet, but the ill effects of this were counteracted by the wild cranberries, currants, etc.

These people have seen very little of civilization and cling to many of their old customs and superstitions, which controlled them physically and morally; though the standards of sexual morality were very low, and the physical carried with it no moral obligation. But they had long recognized that disease might be prevented or controlled by certain laws governing their home and social life.

The old "medicine man" had great power and influence in enforcing these laws. He had, perhaps, some hypnotic and clairvoyant powers, and when any one displeased him he could "make medicine" on him. This meant he possessed the secret of forcing disembodied spirits into his service. Through them the "medicine man" could cause incurable sickness, sores which could not be healed, and even death. He could also cure at will. Childbirth, personal disasters, etc., were all controlled by his charms and incantations. They obeyed the medicine man because of their fear of the wrath of departed souls. Each death added one more unkindly spirit to the list. They also believed that people lived more than once on this earth, though not in the form of animals. Chief Joseph said one day upon his visit to a child just born, "That child has lived before, but not as an Indian."

They had underground caves where were held their heathen rites and ceremonies.

There was also the "medicine woman" who acted as midwife. Much care was taken of the expectant mother. She had to take definite kinds of exercise, and massage was also practiced, and she could eat only certain kinds of meat. Superstition controlled these measures, but very little attention was given to sanitation or cleanliness.

There were tribal laws governing the actions of girls reaching womanhood, such as their diet, social life, etc.

The resourcefulness of the natives is noted in their protecting themselves against the severity of the climate and from insects in summer.

They had some knowledge of herbs and used them effectively as medicines.

Bleeding the patient at the base of the spine or from the scalp was commonly done to relieve pain; and rude surgery was also practiced by both "medicine men" and "medicine women."

There was no mingling of sexes before marriage, but when the girl reached womanhood the parents chose a husband for her. He was invited to live with the parents of his prospective bride for a short time. If the father liked him, they were married; if not, he was sent away and the test was repeated until a satisfactory husband was found for his daughter.

They said in explanation for marrying so young that girls very early get set ideas about things and if they marry young their ideas will conform to those of their husbands and they will get along better.

They also had ways and means of preventing stomach disorders, snow blindness, etc., all dictated by superstition. Girls and young women could not eat bear meat nor walk over bear skins. This rule did not apply to children and old women.

Blackening the area about the eyes with charred wood, they discovered early, would prevent snow blindness in the spring when the eyes could not stand the reflected light from the snow, after the long, dark days of winter.

Before the white man came among the natives, they lived a very simple life. The women did the work, and civilized ways and new methods of living added much to her already heavy burdens. The coming of the trader among them brought canned foods from the outside and improved their ways of working. An old superstition made the men poor hunters if they did dirty or hard work. This, of course, made the women willing to do it.

This new life, without the knowledge for choosing and preparing proper food for the expectant and nursing mothers, caused children to be born with low vitality and to receive insufficient nourishment, and thus without the power of resistance to the tubercular germ.

There was much ignorance concerning the necessity for fresh air, cleanliness, etc. Tribal houses existed where no care was taken against the spread of disease, and adherence to old customs made it difficult for them to accept new ways.

In a very limited but positive way the old "medicine man" diagnosed his case. He put his hand on the chest; listened to the heart; felt of feet and head; then with ceremony, using wood ashes and mumbling a prayer that the spirits would help him.

Homes were built with only one room and there was no privacy; which had a demoralizing effect upon the people.

Hand in hand with the coming of missionaries among these people came schools and the teaching of the sanitary living. Much has been done, but there is much more to accomplish. We cannot expect these people to reach quickly our standards because we have had centuries of Christian civilization back of us. Many are making rapid strides. They are laughing at the old medicine man, bringing the sick to our clinics and hospitals, building cabins with two rooms, putting in ventilators, using sputum cans when sick, burning clothing and utensils used by tubercular patients.

STATE DEPARTMENT OF HEALTH NOTES.

LETTER FROM THE COMMISSIONER OF HEALTH

Upon his appointment by Governor Smith as State Commissioner of Health to succeed the late Dr. Hermann M. Biggs, Dr. Matthias Nicoll, Jr., addressed the following circular letter to all the local health officers of New York State:

"In assuming the duties and responsibilities of Commissioner of Health I am fully conscious of the fact that the standards and ideals established by my distinguished predecessor can hardly be improved upon, but with the co-operation and assistance of the medical profession, and especially the health officers of the State, I shall hope to maintain the public health work of the State on the present high plane of efficiency.

"Under the present system of health administration in the State of New York, success or failure is largely dependent on the co-operation and interest of the practicing physicians, especially if they be health officers. I am fully cognizant of the personal sacrifices that are being made by the health officers of the State, in the majority of instances with no other motive than that of rendering public service.

"May I most earnestly express the hope that in the task which confronts me I shall continue to receive the assistance and co-operation which you have so generously extended to Commissioner Biggs and to myself as his Deputy, and that when any misunderstandings arise regarding the policy or rules and regulations of the Department, you will bring the same immediately to my attention."

PRIVATE LABORATORIES MUST REPORT TO HEALTH OFFICERS.

In response to a request received from a city health officer, the State Department of Health requested an opinion from the State Attorney-General as to the interpretation of the following extract from the Public Health Law, which was inserted in Section 25 of Article III. by an amendment adopted by the Legislature in 1918:

"Whenever an examination for diagnosis by a laboratory or by any person other than the physician in charge of the person from whom the specimen is taken, of any specimen discloses the existence of a case of infectious and contagious or communicable disease, the person in charge of such laboratory or the person making such examination shall immediately report the case, together with all the facts in connection therewith, to the health officer of the city, town or village where such laboratory is situated, and also to the health officer of the city, town or village from which such specimen came, and shall keep a permanent record of all the facts in connection with such examination, including the identity of the person from whom the specimen is taken and the name of the physician, if any, sending such specimen."

The Attorney-General has accordingly rendered an opinion, the substance of which appears in the following extract therefrom:

"No exception is made of private laboratories or of physicians conducting private laboratories in which specimens are examined for diagnostic purposes. Section 25 is intended as a safeguard for the public and disregards any question of confidential relationship which might otherwise arise. The intent of the legislature was to make the duty of the physician to the community at large a greater one than his duty to consider information received through treatment of his patient as confidential and therefore privileged against disclosure. The privilege of confidential relationship between physician and patient, established by Section 352 of the Civil Practice Act, is not constitutional but statutory only. The amendment of 1918 to Section 25 was enacted long after Section 352 of the Civil Practice Act, formerly Section 834 of the Code of Civil Procedure, and is controlling."

NEW LAW PROVIDES FOR STATE AID IN RURAL COUNTY HEALTH WORK.

Following the conference called by Governor Smith last February to obtain the advice of the leaders of the medical profession of the State on the question of hospitals and medical service in the rural districts, the Legislature, on the recommendation of the Governor, passed a bill which is now in force as law, providing for state aid in any new health project undertaken by a county not containing a first or second class city. Under this act any such county appropriating and expending money for the construction, establishment or maintenance of the county, community or other public hospital, clinic, dispensary or similar institution, or for the purpose of defraying the expenses of any public enterprise or activity for the improvement of the public health, may receive state aid upon certification of the State Commissioner of Health that the construction, equipment, service, administration or work is necessary to the public health and conforms to the standards established therefor. Such state aid may amount to 50 per cent of the amount appropriated and expended by the county.

STATE AID FOR LOCAL LABORATORIES.

Another law enacted at the last session of the Legislature authorizes the board of supervisors of any county to establish a laboratory or laboratories serving a part or the whole of the county; or, as an alternative, to contract for laboratory service with an existing laboratory conveniently situated, subject to the approval of the State Commissioner of Health. Upon petition signed by two hundred or more taxpayers of the county or district to be served by a proposed laboratory, the governing body of the county or district is required to hold a referendum upon the question of establishing a laboratory at the next election. If a majority of the votes cast are in the affirmative, it is required that necessary steps be taken for the establishment and maintenance of such a laboratory.

The act further provides that the board or officers now exercising health functions in a city may with the approval of the mayor contract with the board of managers of any laboratory for the purpose of co-operation and to join and share facilities. The law provides for state grants to counties, districts, or cities establishing laboratories or laboratory service under the act, the state appropriation not to exceed in amount one-half of the actual cost of maintenance of the laboratory not in excess of \$7,500 per annum, and of \$2,500 toward the initial installation and equipment of the laboratory.

CHANGE OF TITLE OF SANITARY SUPERVISORS.

Under an amendment to the Public Health Law adopted at the last session of the Legislature and made effective July 1, 1923, the district sanitary supervisors of the State Department of Health are now officially designated as "district state health officers." There has been no change in their responsibilities, which are in general, to represent the State Commissioner of Health in relation to local health work in their respective districts, assisting and advising local health officers in the discharge of their duties.

GOITER PROPHYLAXIS.

Dr. F. W. Sears, Sanitary Supervisor, recently discussed goiter prevention with the Board of Education of the City of Cortland, where the school medical inspector had found that 25 per cent of the girls in the fifth to eighth grades had either slight or moderate goiter. The Board of Education voted unanimously to recommend giving iodine in the schools. The outcome of this work will be awaited with interest.

In Rochester steps are being taken to introduce iodine in the public water supply during two annual periods of two weeks each.

DEPARTMENT OF FICTION

THE MYSTERY OF SEÑORA ESPINEIRA.

By ALBERT WARREN FERRIS, A.M., M.D., F.A.C.P.,
WATKINS, N. Y.

IT was a beastly night. Flushing was cold and dreary. An inch of snow lay in the street and a gentle rain was falling. If it was forbidding without, it was worse within. It was lonely and dismal.

Only half a mile away I knew of a bright, cosy room, warmed by a crackling, hickory fire, where I was always welcome, and where good company and good cheer were always to be found.

I did not think twice about it, but splashed down to Dr. Wickes' office as briskly as the conditions of travel permitted. I was delighted to see his good, old, gray head, as I passed the side window, and in another minute I had given him our signal, a knock on the door and a tap on the window pane.

He admitted me promptly, benevolent as ever, saying, "My boy, I'm glad to see you. I was wondering if I was to be obliged to celebrate the anniversary all alone, on such a cheerless night. Strip off your wet things and come into the office. You'll find a decanter of Madeira there and you know where the cigars are. Pour out and light up, and pull that big chair near the fire."

"Thank you, Doctor," said I. "You are always so cordial that I love to trespass on your courtesy, and accept your good cheer. But tell me," I added, as I lighted a panatela, "what is the anniversary? To quote that frazzled old bromide, 'I do not know how old you are, but I'm sure you don't look it.' Is that the correct thing to say?"

"No, Harold, my boy," he answered, smiling. "it is another kind of anniversary. It's a clinical one. I'll tell you the story.

"Twenty years ago the weather clerk and Jupiter Pluvius treated us just as badly as they are treating us tonight. A little snow fell, then rain, then snow again, till before morning the drifts were deep.

"I was out during the early evening, and came home wet, cold and tired. I wrote very brief notes on my cases that night, and turned in as soon as possible. It seemed as if I had just dropped asleep although it was long after midnight, when my night bell, ringing persistently, roused me to the stern realities of a strenuous life.

"I had never heard before so beseeching a voice as that which reached my ear when I descended, and opened the door to the stranger who confronted me. He begged me to go with him and see his wife, who he feared was in imminent danger of death. He said his name was Espineira, and that he lived a few blocks distant in a house on Bridge Street, the Clarke house, a few steps from the railroad station. You know it well.

"He said his family had moved into it but a few days before, and had done nothing toward settling themselves, but had bent every energy

toward making his wife comfortable. But her cough had not abated, her weakness had increased, and, almost unable to take food or to sleep, she had grown rapidly feeble, and he feared the worst.

"Hurriedly dressing, I picked up my emergency bag, and called to Mrs. Wickes not to worry over my going out again, and not to stay awake. Sparing my chauffeur from needless exposure, I started out afoot to go the short distance necessary, with Mr. Espineira nervously pushing on ahead.

"It was a raw, dreary night, but faint moonlight had begun to leak through between the shifting clouds, as we walked. When we reached his gate, the snow had so gained in depth that our united efforts were needed to shove it open, and he ploughed through to the porch, I following in his foot-tracks.

"Without delay, we went at once up stairs to the bedchamber. The room was scantily furnished and cheerless. The house was cold. Propped up on pillows, with her arms on the outside of a bright silken coverlet, lay a beautiful young woman, apparently Spanish or Portuguese, with unnaturally bright black eyes, and a brilliant red coloring. Her full lips were separated, revealing perfect teeth, as she panted audibly. From each side of her head, and falling down over her shoulders, passed a thick braid of glossy hair, as black as the delicately curved eyebrows that arched over her eyes.

"Turning toward me with a wan smile, she said in a low, musical voice, with a pronounced accent, 'Pardon, Doctor, that I summon so late. The agony in my breast is the more severe every hour, and the night is very long when no sleep is here. I beg you to be so kind and relieve me.' The few words brought on a deep cough that evidently caused much pain."

The doctor paused, and regarded his cigar ash very closely and sternly.

"Lot of foreign furniture and hangings about the room, I suppose, Doctor?" I asked.

"I do not know, Harold," he replied. "I never could recall more than the bed with the patient occupant, and they are still very vivid in my memory. For every time I have passed through Bridge Street during the twenty years that have elapsed, I have recalled the case.

"To continue, I examined the chest. I remember that the stethoscope revealed very extensive disease in both lungs. The thermometer showed a high temperature, and the pulse was rapid and feeble. Wasted hands, waxen ears and nose, and a faint bluish tint about the mouth combined to corroborate the belief that this was a dying woman.

"With a few words of encouragement to the patient, I stepped out into the hall, beckoning the anxious husband to follow me. I told him of the utter hopelessness of the case, and my absolute inability to do anything toward stopping the progress of the disease. He begged me to

give her what relief I could from her pain and cough. This I was glad to do. I left for her a narcotic to control cough and pain, and permit the refreshment of sleep. I also wrote a prescription to be filled by the druggist as early as might be after daylight.

"I took leave of the Señora as cheerfully as possible. At the front door her husband thanked me effusively and begged me to return and visit her daily, as long as she lived, to which I agreed, especially promising to call before my morning office hours.

"Several hours later I returned to the Clarke house, to see Señora Espineira—my first call for the day. The storm had ceased during my first visit. A few men were clearing the snow off the sidewalks; but the walk in front of Espineira's was untouched. The gate stood open, and I reached the house easily by walking in the footprints that led to the porch and across it. No one answered the bell, though I rang repeatedly.

"A young man passing by called out to me, 'Good morning, Doctor; do you want to go into the Clarke house? The key is at Clement's store. I'll get it for you.' He ran over and brought me the key very courteously, and offered to go into the house with me. I declined his offer, and to the question as to whether I had a tenant for the place, I replied that I thought I had.

"Unlocking the door and entering, I found a thick stratum of fine dust covering the old furniture in the parlor, the uncarpeted floors and the stairs, everywhere. It had been disturbed only by people walking about, footprints being visible in halls and on the stairs, though most of the handrail of the balustrade had been dusted. The Portuguese family had evidently not put the parlor in order. Ascending to the second floor I knocked sharply and repeatedly on the door casing. There was no answer beyond a hollow reverberation through the house. Opening the door, I entered the Señora's room. It was empty, save for a bedstead, a few chairs and a table, all thickly covered with dust. On the dirty mantel lay my prescription. This I put into my pocket, and I then left the house.

"Returning the key to Clement's store, I made my way home, and put the prescription in my desk."

"You, Harold, are the first one to whom I have told the story. Here is the prescription; and I think you will agree with me that it is in my hand, and is signed by me."

"Well, Doctor," said I, "that is the strangest story you have ever told me. What is the explanation?"

"My boy," said the old man, looking at me with half-closed eyes, there is only one possible explanation. Under the impulse of a vivid dream I entered the Clarke house, probably through a porch window, in my sleep. Fortunately, I had my clothes on when I sallied forth. There were shoeprints in the snow, and my fountain pen and prescription pad were in my pockets."

Deaths

CENTER, HENRY E., Plattsburg; University of Vermont, 1886; Fellow American Electrotherapeutic Association; Member State Society. Died June 12, 1923.

CONNER, MILTON CORWIN, Middletown; College of Physicians and Surgeons of New York, 1883; Fellow American Medical Association; American Roentgen Ray Society; Member State Society. Died July 5, 1923.

COOGAN, WILLIAM JOSEPH, Brooklyn; Fordham, 1916; Member State Society; Alumni St. Mary's Hospital; Assistant Attending Surgeon Coney Island and St. Mary's Hospitals. Died July 8, 1923.

GRANT, FREDERIC H., Croton-on-Hudson; College of Physicians and Surgeons of New York, 1890; Fellow American Medical Association; Member State Society. Died June 2, 1923.

PRYOR, JOHN H., Buffalo; Buffalo Medical College, 1883; Fellow American Medical Association; Fellow American College of Physicians; American Climatological Association; American Congress of Internal Medicine; National Tuberculosis Association; Member State Society; Chief Consulting Physician Adam Memorial Hospital. Died July 20, 1923.

UDELL, PARSON G., Spencerport; University Pennsylvania, 1871; Member State Society. Died June 23, 1923.

WATERBURY, ROSCOE C., Kinderhook; Albany Medical College, 1905; Member State Society. Died June 6, 1923.

District Branches

ANNUAL MEETINGS FOR 1923

First District Branch—Tuesday, October 16th, Tuxedo Park.

Second District Branch—Monday, November 12th, Brooklyn.

Third District Branch—Friday, September 14th, Sharon Springs.

Fourth District Branch—Not yet determined.

Fifth District Branch—Thursday, October 25th, Syracuse.

Sixth District Branch—Tuesday, October 2nd, Binghamton.

Seventh District Branch—Wednesday, October 3rd, Geneva.

Eighth District Branch—Thursday, October 4th, Buffalo.

PRUNES.

Contributions Solicited.

Jacksonville, Ore., is a small mining town, which has sustained a reputation for a Wild West atmosphere. A resident of this little hamlet was visiting a nearby city, and was asked by a gentleman of the city where he was from.

"Jacksonville," was the reply.

"That reminds me," said the gentleman, "the other day we had quite a bit of excitement in our city. A man rode into town on a mountain lion, and was leading a wild-cat which he had tied onto a hundred feet of barbed wire. He rode up to a drug store, hitched his lion to a street hydrant, and tied up his wild-cat. Going into the drug store, he called for four ounces of carbolic acid. Drinking this down, he said: 'I'd like to have a chaser; gimme two ounces of sulphuric acid.' Drinking this at one gulp, he started out. The druggist called to him, saying:

"Say, my friend, wait a minute. Would you mind telling me where you are from?"

"Well, I been livin' down here at Jacksonville, but them folks there is gittin' too hard-boiled fer me; so I'm leavin' town."—*Judge.*

The Real Danger.

Dan Boone, the fearless animal tamer of the circus, had a dread of cold air that amounted almost to an obsession. One day after his exhibition in a cage with a fierce lion, he remarked to the circus manager, "John, old man, this will be the death of me yet."

"You're not losing your nerve, are you, Dan?" inquired the other anxiously. "You're not afraid of that lion?"

"Afraid of that beast?" snorted Dan in disgust. "I should say not! But those cages are the worst place on earth for drafts. Some day I'll take cold in one of them and it will be the death of me."—*Boston Transcript.*

A farmer rode into a Middle Western town and inquired of the first man he met where he could find an undertaker.

"An undertaker?" the man asked. "Is there some one dead at your house?"

"No, there is no one dead," replied the farmer, "but my wife is pretty sick."

"Well, then," the man advised, "you want a doctor, not an undertaker."

"No," said the farmer. "What I want is an undertaker. You know, I have joined the Co-ops, and we have cut out the middlemen."—*Judge.*

No Damage Done.

After much excitement the Smiths had at last managed to catch the train.

Now, when they could sit quietly for a while, they began to wonder if they had left anything behind.

Mrs. Smith gave a shriek.

"Oh, Harry," she gasped, "I forgot to turn off the electric-iron!"

"Don't worry, darling," he replied, "nothing will burn. I forgot to turn off the shower-bath."—*The Christian Advocate* (New York).

Accurate Diagnosis.

Stockbroker—"Yes, I'm feeling a bit below par."

Doctor—"Say, 99."

Stockbroker—"Worse than that—98 and fifteen-sixteenths."—*London Opinion.*

Restaurant American.

"Scrambled eggs," ordered a customer in a restaurant.

"Milk toast," said his companion, who was not feeling well.

"Scramble two and a graveyard stew," called the waitress.

"Here," corrected the second man, "I want milk toast."

"You'll get it, Buddy," replied the girl. "That's what they call milk toast down in Pittsburgh."

The two customers decided to put one over on the "fresh young thing."

The first one wanted a glass of milk and the second a cup of black coffee.

When the girl appeared, the second man gave the order, "A bottle of lacteal fluid for my friend and a scuttle of Java with no sea foam for me."

"Chalk one an' a dipper of ink," shouted the girl.

Strictly Business.

A speaker at a minister's meeting in Boston told the story of a negro clergyman who so pestered his bishop with appeals for help that it became necessary to tell him that he must not send any more appeals. His next communication was as follows:

"This is not an appeal. It is a report. I have no pants."—*Houston.*

Not All There.

Elizabeth came to school one day in a state of suppressed excitement. Going straight to the teacher's desk, she exclaimed exultantly, "I've got a new little sister!"

"How very nice," replied the teacher.

"Yes," said Elizabeth, "but this is only a *half*-sister."

"Why, that doesn't make any difference, does it?"

"No, but I never can understand where the *other* half is."—*Harper's Magazine.*

Breaking It Gently.

The young editor had just founded a new magazine—one of those high-brow things with pale gray covers and uncut pages—and was eager for applause.

"What do you think of it?" he asked the celebrated literary critic to whom he took a copy for examination.

"Well," replied the other, wearily but warily, "the stuff you rejected must certainly have been rotten."—*American Legion Weekly.*

Out of Luck.

Old Gentleman (engaging a new chauffeur)—"I suppose I can write to your last employer for your character?"

Chauffeur—"I'm sorry to say, sir, each of the last two gentlemen I have been with died in my service."—*Punch* (London).

On Summer Time, Perhaps.

"Mummy, is it lunch time yet?"

"No, darling, not for another hour."

"Well, then, my tummy must be fast."—*Passing Show* (London).

A Business "Blind."

Office Boy—"The boss can't see any one today."

Caller—"Oh, well, tell him I hope his blindness is only temporary."—*The Passing Show* (London).

County Societies

BRONX COUNTY MEDICAL SOCIETY. REGULAR MEETING, JUNE 20, 1923.

The meeting was called to order at Fordham Hospital at 9:40 P. M. In the absence of the President and Vice-Presidents, the Secretary, Dr. Landsman, presided.

Dr. Rost moved that the reading of the minutes of the last meeting of the Society and of the Comitia Minora be dispensed with. Motion carried.

Dr. Eichler, for the Outing Committee, reported that the Athletic Carnival would be held at the "Ben Hur," City Island, Tuesday, August 21, 1923.

Election of candidates being in order, it was moved, seconded and carried that the Secretary be instructed to cast one ballot for the following applicants for membership: Samuel Indenbaum, Morris Klorman, James M. Rosen.

Dr. Gitlow proposed the following Amendments to the By-Laws:

"The Bronx County Medical Society shall organize, own and maintain a Library."

"The Bronx County Medical Society shall organize sections in the various specialties."

It was ordered that the above Amendments be printed in the October folder.

The Clinical Meeting, under the auspices of the Staff of Fordham Hospital, then proceeded, as follows:

(a) "Lympho Sarcoma of Thymus"; (b) "Ruptured Abdominal Aneurysm," Dr. Schwartz.

"Sinus Thrombosis," S. H. Basch.

"Adherent Placenta," John H. Telfair.

(a) "Addison's Disease"; (b) "A Typical Lymphatic Leukemia"; (c) "Chorea," William J. Walker.

(a) "Acute Pancreatitis"; (b) "Unusual Retroperitoneal Tumor"; (c) "Bone Graft," Alexander Nicoll.

"Difficult Feeding Case," William Hinz.

(a) "Pyloric Resection for Ulcer"; (b) "Double Resection for Malignant Growth of Colon"; (c) "Osteomyelitis," Edward R. Cunniffe.

"Treatment of Contracture Following Burns," S. W. Boorstein.

"Bilateral Retrobulbar Optic Neuritis Due to Sphenoidal Disease," H. C. Wincor.

"Double Pneumothorax With Unusual Complications," I. J. Landsman.

"Sarcoma of Thymus With Bone Complications," Henry Hirsch.

Dr. Gitlow moved that discussion be dispensed with. Motion carried.

Books Received

Acknowledgment of all books received will be made in this column, and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interest of our readers.

PHYSIOTHERAPY TECHNIC, A MANUAL OF APPLIED PHYSICS. By C. M. SAMPSON, M.D., formerly of the Physiotherapy Service, Walter Reed U. S. Army General Hospital, Washington, D. C.; formerly Chief of Physiotherapy Service, U. S. Army General Hospitals No. 9, Lakewood, N. J., and No. 41, Fox Hills, Staten Island, N. Y. With 85 illustrations. C. V. Mosby Company, St. Louis, 1923. Price, \$6.50.

INTERNATIONAL CLINICS. A Quarterly of Illustrated Clinical Lectures and especially prepared original articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, and other topics of interest to students and practitioners—by leading members of the Medical Profession throughout the world. Edited by HENRY W. CATTELL, A.M., M.D. Volume II, Thirty-third Series, 1923. J. B. Lippincott Co., Phila. and London.

THE OPERATIVE TREATMENT OF GLAUCOMA. By H. HERBERT, F.R.C.S., Eng., Lieut.-Col. Indian Medical Service, Retired; in charge of the Cowasjee Jehangir Ophthalmic Hospital, Bombay; Consulting Surgeon, Nottingham and Midland Eye Infirmary; William Wood & Co., New York, 1923. Price, \$3.00 net.

TEETH, DIET AND HEALTH. By KURT H. THOMA, D.M.D., Assistant Professor Oral Pathology, Harvard University Dental School. Illustrated. The Century Company, New York, 1923. Price, \$2.00.

A MANUAL OF ARTIFICIAL RESPIRATION. By Capt. G. R. G. FISHER, Director Bureau of First Aid, Northern Division, American Red Cross. The Stratford Co., Boston, Mass., 1923. 75c.

MANUAL ON SHIP SANITATION AND FIRST-AID FOR MERCHANT SEAMEN. Prepared under the direction of the Rev. ARCHIBALD R. MANSFIELD, D.D., Superintendent Seaman's Church Institute of New York in co-operation with the United States Public Health Service, Washington, D. C., by ROBERT W. HART, Passed Assistant Surgeon. Second Edition, with illustrations. Published by the Seamen's Church Institute of New York. Price, \$1.00.

ASTHMA. By FRANK COKE, F.R.C.S. With frontispiece in color and other illustrations. William Wood & Company, New York, 1923.

AIDS TO GYNECOLOGY. By RICHARD E. TOTENHAM, B.A., M.D., B.Ch., D.P.H. (University of Dublin), F.R.C.P.I. Sixth Edition. William Wood & Company, New York, 1923.

A TEXT-BOOK OF THERAPEUTICS INCLUDING THE ESSENTIALS OF PHARMACOLOGY AND MATERIA MEDICA. By A. A. STEVENS, A.M., M.D. Sixth Edition, entirely reset. Octavo of 793 pages. Phila. and London: W. B. Saunders Company, 1923. Cloth, \$6.25.

SURGICAL CLINICS OF NORTH AMERICA. June, 1923. Volume 3, Number 3. San Francisco Number. Published Bi-Monthly (Six numbers a year) by W. B. Saunders Company, Philadelphia.

A TEXT-BOOK OF PHARMACOLOGY AND THERAPEUTICS. By E. POULSSON, Professor of Pharmacology in the University of Christiania. English Edition edited by W. E. DIXON, M.A., M.D., F.R.S. Octavo of 519 pages. London: William Heinemann, 1923. Cloth, 25 shillings.

PRACTICAL MORBID HISTOLOGY. A Handbook for the use of Students and Practitioners. By ROBERT DONALDSON, M.A., M.D. Octavo of 364 pages. London: William Heinemann, 1923. Cloth, 15 shillings.

THE MEDICAL CLINICS OF NORTH AMERICA. Volume 6, Number 6, May, 1923 (San Francisco Number). 296 pages, with sixty-six illustrations. Published Bi-Monthly by W. B. Saunders Company, Phila and London. Paper (six numbers per year), \$12.00.

COLLECTED PAPERS OF THE MAYO CLINIC, ROCHESTER, MINNESOTA. Edited by Mrs. M. H. MELLISH. Volume XIV, 1922. Octavo of 1394 pages, with 488 illustrations. Phila. and London: W. B. Saunders Co., 1923. Cloth, \$13.00.

PRACTICAL DIETETICS WITH REFERENCE TO DIET IN HEALTH AND DISEASE. By ALDA FRANCES PATTEE, Graduate, Department of Household Arts, State Normal School, Framingham, Mass. Fourteenth Edition, completely revised. A. F. Pattee, Publisher, Mount Vernon, New York, 1923.

TEACHER'S DIETETIC GUIDE. To accompany Pattee's Practical Dietetics. Given gratis with each copy of Pattee's Practical Dietetics.

CURES. By JAMES J. WALSH, M.D., Ph.D., Sc.D. Professor of Physiological Psychology, Cathedral College and College of the Sacred Heart (Manhattanville), New York City; extension Professor, Fordham University. D. Appleton & Co., New York, 1923.

Book Reviews

HISTORY OF THE GREAT WAR BASED ON OFFICIAL DOCUMENTS. Medical Services. Diseases of the War. Vol. I. Edited by Major-General Sir W. G. MACPHERSON, K.C.M.G., C.B., Major-General Sir W. P. HERRINGHAM, K.C.M.G., C.B., Colonel T. R. ELLIOTT, C.B.E., D.S.O., and Lieutenant-Colonel A. BALFOUR, C.B., C.M.G. Octavo of 550 pages, illustrated. London: His Majesty's Stationery Office, Imperial House, Kingsway, W.C., 2, 1922. Cloth, 22 shillings.

This volume consists of a brief discussion of the general aspects of disease during the war, followed by twenty-two chapters, each consisting of a monograph devoted to one disease encountered by the British troops during the war. Each paper is based on a tremendous amount of material collected by the Medical Service with this object in view, as described in the review of the first volume of the series. The articles are written in very readable style. While each statement is backed up by statistical evidence, they are very far from being mere compilations of figures. The old army scourges, typhoid and dysentery, form an interesting contrast. The practical elimination of the former by prophylactic vaccination is one of the triumphs of modern medicine. The latter still remains to be conquered, in spite of a vast amount of work devoted to the subject. In passing, it should be remarked that smallpox seems to be so thoroughly conquered that it is not even mentioned in the book. Of course much material was collected, and thoroughly digested, in regard to influenza and typhus fever. Valuable contributions to tropical medicine are found in the articles on trypanosomiasis, relapsing fever, malaria, phlebotomus fever, etc. Trench fever, infectious jaundice, and famine dropsy afforded more or less new fields for study. As with many other diseases, the British experience with epidemic meningitis paralleled our own quite closely, perhaps the most important lessons learned being in regard to the detection and treatment of carriers. In fact, throughout the book one is struck with the determined and frequently successful efforts of the Medical Service to prevent disease by exhaustive investigation and the prompt and thorough application of every known measure. This necessitated the constant use of field laboratories, and the fact is emphasized that even under the disadvantages and stress of war at the front, it is possible to accomplish not only a vast amount of routine work, but to carry through important research work as well. There is a chapter on nephritis and a very interesting review of the circulatory disturbances encountered. In many of the articles the literature bearing on the subject, even the German, is freely quoted, and a bibliography appended. The material in the book is largely familiar through recent publications, but it sums up in a striking manner the lessons learned through the war on these subjects, and should be of immense value not only to the medical officer but to the civilian practitioner in familiarizing him with the newer aspects of these diseases, and in particular informing him of the successful methods of preventing them.

T. H.

WAR BLINDNESS AT ST. DUNSTAN'S. By SIR ARNOLD LAWSON, K.B.E., M.D., F.R.C.S., L.R.C.P. Oxford University Press. 1922. Price, \$2.50.

This work represents a compilation by its well-known author of a great number of cases of blindness seen at St. Dunstan's during and immediately after the war. The cases are divided into traumatic and non-traumatic blindness and the histories carefully written up. The reports are interesting because of the numerous causes of blindness encountered. A chapter on pensions and disability and re-education of the blind help to complete the volume.

WM. F. C. STEINBUGLER.

HISTORY OF THE GREAT WAR BASED ON OFFICIAL DOCUMENTS. Medical Services, Hygiene of the War, Vols. I and II. Edited by Maj.-Gen. Sir W. G. MACPHERSON, K.C.M.G., C.B., LL.D., Col. Sir W. H. HORROCKS, K.C.M.G., C.B., and Maj.-Gen. W. W. O. BEVERIDGE, C.B., C.B.E., D.S.O., K.H.P., London: His Majesty's Stationery Office, Imperial House, Kingsway, W.C., 2, 1923. Octavo, Cloth, 21 shillings, net, each.

These two extremely instructive volumes are full of detailed information on the sanitation of the various fronts occupied by British troops, the prevention of specific diseases to which their troops were exposed, etc. Summed up, they represent a report of the practical measures which were adopted for the prevention of disease. As an instance of what was accomplished, the authors show that during the South African war, with an average strength of 208,000, and an aggregate personnel of 530,000, there were 58,000 cases of typhoid fever with more than 8,000 deaths, while in the war 1914-1918 with an average strength of one and three-quarter millions and an aggregate of three or four times that number, there were less than 7,500 cases of typhoid and paratyphoid on the western front, with only 266 deaths.

THE MEDICAL CLINICS OF NORTH AMERICA (Issued serially, one number every other month). Published by the W. B. Saunders Company, Philadelphia. Paper, price, \$12.00 per year (six numbers).

Volume 6, Number 4, January, 1923 (Philadelphia Number).

This number is on a par with the usual high standard of the Medical Clinics of North America. Among the twenty-one contributions, those of Dr. Chevalier Jackson and his co-workers at the Bronchoscopic Clinic are of especial interest.

Volume 6, Number 5, March, 1923 (Ann Arbor Number).

This number reports eighteen clinics from the University Hospital at Ann Arbor. Little more need be said than that the usual high standard of this publication is maintained. Of especial interest are Newburgh's clinic on high fat feeding in diabetes mellitus and Herrmann's clinic on the diagnosis of endocarditis.

Volume 6, Number 6, May, 1923 (San Francisco Number).

Twenty clinics are reported, offering a great variety of case material. The clinics are interesting, well written, and right in line with recent developments in internal medicine. Two papers are of especial importance, *i. e.*, that by Lisser and Nixon on the relation between dyspituitarism and epilepsy and that by Pierson on post-influenzal lung conditions. F. D.

LEGAL MEDICINE AND TOXICOLOGY. By many specialists. Edited by FREDERICK PETERSON, M.D., Manager Craig Colony for Epileptics; WALTER S. HAINES, M.D., and RALPH W. WEBSTER, M.D. Second Edition. Two octavo volumes. 2268 pages, 334 illustrations, 10 insets in colors. Phila. and London: W. B. Saunders Co., 1923. Cloth, \$20.00 net.

After reading "Legal Medicine and Toxicology" by Peterson, Haines and Webster, one feels quite confident in recommending it to the legal and medical professions at large and to students of Medical Jurisprudence in particular.

The work (there are two volumes) is systematic, thorough, accurate and fairly complete, and, above all, is pleasurable reading. The chapters on "Injuries and Disorders of the Nervous System following Railway and Allied Accidents," "The Stigmata of Degeneration" and "Mental Disorders in Medicolegal Relations" are exceptionally thorough and enlightening.

We believe that every physician, be he a general practitioner or a specialist, should read and make himself acquainted with this work.

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DR. HERMANN M. BIGGS

By MATTHIAS NICOLL, JR., M.D.

State Commissioner of Health

Had it not been my privilege as his sole deputy commissioner during the past six years to study Dr. Biggs' methods of work from a most favorable point of vantage, I should hesitate to intrude upon that distinguished company in order to set down in brief and for what they are worth my impressions of some of the personal characteristics which contributed to his unquestioned genius.

It has frequently been stated, and I believe with truth, that Dr. Biggs would have made a success of any business or profession to which he had devoted his talents. Fortunately he planned almost from boyhood the career which was destined to mean so much to his State and Country. A thesis written by him for his degree of Bachelor of Arts in 1882 on "The Duty of the State in Regard to Public Hygiene" establishes very clearly the beginning of his interest in the subject to which he subsequently gave the best part of his life's work. The man of twenty-three years of age, writing at a time when public health activity in this country was in its early infancy, clearly foresaw its importance to the future welfare of the human race and prophesied its rapid growth. Fired with enthusiasm on the then reported discovery of the tubercle bacillus by Koch he predicted as a result the ultimate eradication of human tuberculosis. More than half the road to the fulfillment of that prediction has already been traveled. This power of constructive vision Dr. Biggs possessed to a remarkable degree and it grew with the advancing years.

As an administrator he was but little interested in detail, preferring to leave the working out of plans formulated by him to others in whom he had confidence. He desired only useful results. His office and field staff were given absolute freedom to solve problems in their own way, and while always ready to offer advice and suggestions, he was strongly opposed to putting anyone in leading strings. He was an excellent judge of human nature, and frequently seemed to know men better than they knew themselves. His estimate of character and ability, quickly formed, rarely proved to be mistaken. Always charitable toward justifiable ignorance and honest mistakes, nothing so aroused his usually placid tempera-

ment as downright stupidity and carelessness. While fully recognizing the value of dignified and accurate publicity, he despised cheap notoriety, cant, and the promulgation of half-truths and ill-considered statements solely with the object of aggrandizing an individual or an organization. He was not an orator and rather dreaded speaking in public, a fact for which he often expressed regret. But so concise, well-ordered and sincere were his addresses that no audience ever failed to give him the closest attention. His writing were models of English, direct, concise and readable. Involved sentences and parenthetical interpolations were to him anathema, as many of us had reason to learn. When editing manuscripts referred to him he was frequently ruthless, yet in an amazingly short time the writer, with no loss to his pride of authorship, realized that the blue pencil had been freely applied by a master of style, and greatly to the writer's benefit.

He was a diplomat, preferring to accomplish results by persuasion, education and example rather than by aggressive methods. He knew how to compromise, but never on a principle, and how to choose the proper time and occasion to promulgate new ideas. When he was certain of his ground, as in the famous instance of initiating the regulations for the reporting of cases of tuberculosis, he was very ready to sacrifice all professional and personal ties for the time being in order to accomplish his purpose, well knowing that his position would ultimately prevail and receive support.

In his social and official relations he was always cordial, but never effusive. The seeming austerity with which he was sometimes charged was, I believe, due to a certain diffidence and innate modesty. He had hosts of friends and admirers, but I think few intimates. He had no hobby but work, and it is doubtful if his active mind was ever very long at rest or free from serious thought and planning.

The work of Dr. Biggs for the public health is known throughout the civilized world. That he was a great physician is not so generally known. Leaders in professional, financial and political circles from all parts of the country sought his professional advice. While himself a keen and resourceful diagnostician who fully recognized the basic importance of arriving at a diagnosis, he frequently deplored the modern tendency of

physicians to regard their duty to their patients as done when they were able to determine the probable cause of the symptoms from which they sought relief. He maintained that a patient was not so much interested in causes as in restoration of health, and if that were not possible, in being relieved of discomfort and suffering. His own patients always received the full benefit of that conception of a physician's whole duty.

Firmly believing that the great future of medical practice lay in the field of prevention, especially of the much neglected diseases of adult life, shortly before his death he had planned to create in the Department of Health a new Division for the study and prevention of these diseases.

Nothing contributed so much to the success of Dr. Biggs' work as his power to create in his associates and subordinates an intense spirit of loyal service. That spirit was not dependent on his constant personal presence. To those of us and our successors who must assume a part of the burden fallen from his weary shoulders may it continue to act as an inspiration and guide in the years that are to come.

HERMANN M. BIGGS, M.D.

By WILLIAM H. PARK, M.D.

The death of Dr. Biggs was a great shock to a very wide circle of people beyond his own personal friends. His outstanding achievements in public health are known to all, but his almost equal eminence as a great physician is less generally recognized. His preparation for his life's work was thorough. After leaving the Bellevue Hospital Medical School, he served as an interne in Bellevue Hospital and then spent a year abroad. This brought him in contact with Koch and Pasteur and developed in him an enthusiasm for preventive medicine. On his return he further equipped himself for the practise of medicine by the study of pathology. This led to his appointment as professor of pathology in the Bellevue Medical College in 1889 and as adjunct professor of medicine in 1897. Later he became full professor.

Dr. Biggs' eminence in medicine was because of his personal qualities rather than from outstanding scientific attainments. As a friend of his put it, people who had gone from doctor to doctor seeking cure or relief or comfort, turned to him and then did not look further. Whether or not he could give the aid they sought, they knew that he was with honesty, knowledge and common sense utilizing every known help to give them relief. Many persons of great value and importance to the community relied upon him for treatment when ill and for guidance in health.

Dr. Biggs from the very beginning of his medical career was deeply interested in public health.

The subject of his thesis written for the degree of bachelor of arts on his graduation at Cornell University, was "The Duty of the State in regard to Public Hygiene." He soon became connected with the Department of Health.

At his suggestion the Board of Health in 1893 established the first municipal laboratory for the control of communicable diseases. It was his firm belief that the City should have a laboratory fitted to do for the physicians of the City whatever the development of science at the time permitted. In 1898 the manufacture of antitoxin was begun. At his suggestion the Board of Health made it available for all the people of the City.

As far back as 1888 he had planned measures for the lessening of tuberculosis. Under his guidance the New York City Health Department became a leader in the methods utilized to prevent tuberculosis. In 1904, he was made the Chief Medical Officer of the City and so became in name, what he had long been in fact, the advisor of the Board of Health on all important matters connected with the public health. Through his advice a division of child hygiene was established, the milk supply of New York City was first rendered clean and later safeguarded by pasteurization. New hospitals for contagious diseases were erected; tuberculosis clinics were established and the sanatorium for tuberculosis was built at Otisville. In 1914, he was appointed the Chairman of the Commission to revise the public health laws of New York State and later by Governor Glynn to the post of State Health Commissioner and Chairman of the Public Health Council. There with his ripened knowledge and great experience, he obtained legislation making possible an efficient State Department of Public Health. Backed by his support, a great public health laboratory was created. The health officers and the public health nurses were encouraged to take a more important place in the community. Short courses were given for their instruction in the latest public health information.

Dr. Biggs played an important part in shaping the plans of many organizations which were interested in public health and preventive medicine. Thus he was a member of the Board of Directors of the International Health Board, The Rockefeller Institute for Medical Research and the American Red Cross.

Dr. Biggs had remarkable qualifications for his profession. Before he made decisions on public health matters, he carefully weighed all available information. When his judgment had been formed and the support of the leaders in the profession had been obtained, he would go

ahead fearlessly to take an advanced position. He was never in a hurry to force the medical profession or the public to accept new legislation. He was content to let the truth gradually sink into their minds through education. He was quick to seize on opportunities which could be utilized to advance public health measures.

The death of Dr. Biggs is a great loss to this State and nation. Only those of us who knew him best can realize how great this loss is.

ANKYLOSIS; TREATMENT BY ARTHROPLASTY.*

By W. RUSSELL MacAUSLAND, M.D.,
BOSTON, MASS.

INJURY to the smooth resilient cartilage which lines the normal joint, whether due to disease or external violence, results in a lessened range of motion, and, if severe enough, in complete loss of motion. A bony bridge, or fibrous tissue develops and may entirely replace the joint space, giving rise to bony or fibrous ankylosis.

Ankylosis of a joint causes varying degrees of disability, depending (1) on the joint involved, (2) on the stability of the ankylosis, and (3) on the deformity present. For instance (1) loss of motion in a spinal joint may take place without the individual's being aware that he has lost any function. This observation is frequently made in chronic arthritic cases. Occasionally a striking loss of motion may be observed in the whole lumbar spine without the patient's being aware that function has been lost. A wrist joint may be stiff with only the slightest disability. One knee joint without motion may be disabling only in a mild degree. The second factor, (2) *stability*, must be kept constantly in mind. To return to the example of the stiff knee joint—the disability and pain may be considerable if there is a fibrous ankylosis which is susceptible to joint strain; on the other hand, if the ankylosis is bony, the patient may suffer no pain and only slight disability. It is in weight-bearing joints that this factor is of more importance.

(3) There is a direct relation between the deformity present and the amount of disability in most joints, and it is with this factor more than any other that the surgeon must deal. A hip joint with flexion and adduction deformity may be very disabling, but if the hip is ankylosed in a good position, there is little loss of function. Similarly, a shoulder joint ankylosed with the

proper degree of abduction may show a range of usefulness which closely approaches normal.

It is important for the surgeon to be familiar with these facts concerning ankylosis, before he approaches the subject of arthroplasty, or the mobilization of ankylosed joints by operation. Each individual case must be considered singly and not infrequently the surgeon must base his final decision upon a minor factor, which without careful consideration might be overlooked. It is not merely the fact that the joint is stiff that leads one to advise operation.

INDICATIONS FOR ARTHROPLASTY.

What may be considered, then, the definite indications for operation? In general, only certain joints are to be considered for operation, and these in the following order of frequency: (1) the elbow, (2) the hip, (3) the knee, (4) the temporo-maxillary (jaw), (5) the wrist and fingers. Other joints are not included for the reason that the ankylosed joint in good position will give good function. The shoulder, as has been mentioned before, functions well in a good position. The ankle stiff at a right angle functions well. Further indications for mobilization should be considered for each separate joint which I shall take up in order.

(1) *The elbow—*

(a) When both elbows are stiff, arthroplasty is always indicated on one joint, at least.

(b) Arthroplasty is always indicated when the loss of function in the joint is a serious disability in a patient's occupation.

(c) Arthroplasty is indicated when the elbow is stiff in a bad position. By this, I mean that if an elbow is stiff at 180°, it is absolutely necessary to change the position for functional purposes and, since an operation is required to do this, the procedure may well be an attempt to mobilize rather than a simple osteotomy.

(2) *The hip—*

(a) Two stiff hips may be considered a definite indication for an attempt to mobilize one of them.

(b) A stiff hip associated with a stiff knee in either leg may be considered a definite indication for mobilization.

(c) A stiff hip in bad position requiring an osteotomy rarely may be considered an indication for arthroplasty.

(3) *The knee—*

(a) Two stiff knees alone or associated with one or two stiff hips may be considered an indication for an attempt at mobilization of one and rarely both knees.

* Read at the Annual Meeting of the Medical Society of the State of New York at New York City, May 23, 1923.

(4) *Temporo-maxillary*—Always must be mobilized.

(5) *Wrist and fingers*—

(a) The general indications for arthroplasty are rare because of the fact that in hyperextension a stiff wrist causes very little loss of function. For patients who require wrist-joint motion in their work, an attempt at arthroplasty is permissible, but the procedure is rarely found necessary. In finger joints, also, operation is seldom applicable, and the judgment of the surgeon depends solely on the patient's individual circumstances.

CONTRA-INDICATIONS TO ARTHROPLASTY.

(1) The tubercular joint rarely, if ever, lends itself properly to operative interference.

(2) No joint should be mobilized in which a stiff joint is of slight disability.

(3) No joint should be mobilized when operation is contra-indicated by age or the patient's general condition.

A SHORT HISTORY OF THE MOBILIZATION OF JOINTS.

The mobilization of stiff joints was first attempted by J. Rhea Barton in Philadelphia in 1826, who produced a pseudo-arthrosis in a case of ankylosis of the hip joint. From this time many writers who have advocated various methods have written on this subject. The great advances in the work have been due to such men as the late Dr. John B. Murphy of Chicago, Dr. Putti of Bologna, Dr. Baer of Baltimore and Dr. Neff of Chicago. By the untiring and earnest efforts of these leaders much has been done to advance this work and to so stabilize surgical technique in its application to ankylosed joints that, at the present time, the surgeon who is devoting his attention to this special branch may justifiably and without hesitation recommend arthroplastic measures in certain joints. Various substances have been advocated as interposing material; fat, muscle, fascia, and specially prepared membranes. The concensus of opinion, however, is that free fascia transplants give us the best and most consistent results.

ARTHROPLASTY NOT AN EXCISION.

It is necessary to point out quite definitely the difference between arthroplasty and excision. Literature is filled with various reports of cases in which the procedure, *an excision*, resulted in the unstable joint that one expects from a careless removal of bone. Excision does not result in stability; arthroplasty does. Excision is a crude surgical procedure, the ultimate results of which do not warrant its use in any conditions save in serious joint infections, usually, of tubercular origin.

A good arthroplasty gives a good sliding joint. The late Dr. John B. Murphy has emphasized this point over and over again. The range of motion in the joint is always good and its strength approaches normal. Stability is an absolute essential. The joint should also be painless and able to stand hard use without showing arthritic changes. To summarize: An arthroplasty results in good permanent motion, good strength, and good stability, without pain.

TECHNIQUE FOR ARTHROPLASTY.

In the technique for arthroplasty for various joints, the approach and exposure to enable proper remodeling of the joint, as well as the proper interposition of tissue, seem to me to be the two fundamental factors to be considered. With these in view, the following technique for elbow-joint arthroplasties has been evolved. It will be readily seen that the posterior exposure has many advantages over the double lateral exposure, in that perfect remodeling and interposition of tissue may be obtained.

OPERATIVE TECHNIQUE.

The Elbow Joint—

The arm from the wrist to the shoulder and the leg on the same side, from the hip to the knee, are given a two-day preparation. At the time of the operation, a tourniquet is applied to the upper third of the arm and an application of iodine made to the skin.

A semicircular incision is then made, beginning over the external condyle and running down about two inches and up over the internal condyle. The wound is sponged with alcohol and carefully clamped off to avoid the handling of the skin during the operation. The flap containing skin and superficial fascia is then dissected back to the base line and retracted. The ulnar nerve is isolated and dissected out of its sheath. It is sometimes difficult to find this nerve, but it is always to be sought at the inner side of the internal condyle. It should be dissected out carefully with a blunt dissector so as not to break or injure it. After it has been freed for one and one-half inches, gauze is passed beneath the nerve, and it is retracted to the ulnar side. It is then freed further by blunt dissection with gauze.

A transverse incision is then made extending down through the periosteum. This incision follows in direction the superficial one, and outlines a flap which is to be dissected back and preserved *in toto* for subsequent covering for the joint. The pulling back of this flap is a hard and tedious process until it is well started, after which it can be peeled back readily by blunt dissection. It is the inner side that is the hard part, as the layer is thin here, and one must exercise great care not to buttonhole it. The olecranon is then sawed

through. After this, it is frequently possible to break open the old joint. In some cases, however, ankylosis is bony and the joint cavity obliterated. Cases of this kind are the most difficult and in these it is necessary to saw through the joint. The tip of the olecranon has to be chiseled out and dissected back with its posterior flap. Usually the olecranon is too large, and it is well to take off a little of it.

The capsule, fascia, and ligaments are then dissected back so as to allow the lower end of the humerus to protrude into the wound. Then its edges are snipped off with rongeur forceps and a new trochlear or intercondylar surface formed. A shoemaker's rasp is used in filing the extremity as near like the normal humeral end as possible. After this modeling, a piece is removed corresponding to the olecranon fossa in the normal humerus. One has to be careful about making this cup, as the success of the operation depends largely upon attention to such small details. This modeling is largely done with a saw and a file.

To ensure good function, the joint surfaces should fit accurately before the fascia is applied, but the joint should not be too loose. Only sufficient bone must be removed to give free motion. If too much bone is removed from the ends, a flail joint will result, giving the operation no advantage over an excision. When this mortising is completed, the fascial flap is dissected from the leg. An incision is made on the outer side of the thigh, a little below the middle, extending down to the fascia lata. After a flap of fascia five to seven inches by four to five inches is dissected out, the wound is closed.

This fascia, which is free from all fat, is placed about the newly fashioned humeral condyles and attached anteriorly to the capsule and posteriorly to the periosteum of the lower end of the shaft of the humerus with interrupted chromic catgut sutures No. 2. Chromic catgut No. 2 is then loosely wound twice around the shaft just below the interrupted suture line.

The forearm is placed in apposition to the condyles. Two drill holes are then made in the olecranon process and two others opposite them in the shaft of the ulna. Through these, kangaroo tendon is passed and tied. The inner layer is now sutured with chromic catgut No. 2 and the skin and fascia with plain catgut No. 2. Dry sterile dressings are applied and the arm put up in plaster beyond a right angle.

AFTER-TREATMENT.

If there is no evidence of infection, the cast should remain on for a week. It is then split and the dressing changed. If there is a persistent temperature, a window should be cut in the cast and the wound inspected.

If normal healing takes place, passive motions are begun in about ten days. The arm is

always kept above a right angle. After three weeks, gentle massage is applied. Baking is begun in six weeks and practised three or four times a week.

The ultimate success in these cases depends very largely on the after-treatment. The patients should be under observation for a long period of time. Frequent X-Rays should be taken so that we may follow the bony changes in the joint. If motion begins to shut down, the arm should be manipulated under an anæsthetic and the elbow put up in acute flexion. Occasionally motion becomes limited, due to an exuberant growth of new bone. In this case, a secondary operation should be done to remove the new bone, but it should not be undertaken for at least three months after the original operation.

Case I. W. D. was referred to me by Dr. A. W. Shea of Nashua, New Hampshire, and was operated on before the New Hampshire Surgical Club. On March 25, 1911, he had received a contused wound of the left thumb, which became septic. Sepsis became general and in a week he entered the hospital. Five incisions were made in the left hand, two in the left wrist, one close to the left elbow-joint and one in the left hip. All had drains put in. A student in the hospital opened a swelling near the right elbow and cut into the joint. At the end of twenty-one weeks the patient was discharged from the hospital with bony ankylosis of the right elbow and with only a few degrees of motion in the left elbow. Both joints were slightly flexed. The left wrist had a sinus which still drained a little. The patient had little motion in the fingers, being unable to flex them to a right angle with the palm of the hand. He was unable to feed himself or to touch his head with either hand.

He entered St. Joseph's Hospital, and I did an arthroplasty on the right elbow, in March, 1912, using a flap of fascia lata for interposition. A hard bony ankylosis was found. The skin was closed with silkworm-gut and a voluminous dressing applied with the arm at a right angle. Arm and forearm were placed on pillows with heavy dressings but no splint. Passive motion was begun on the fifth day. Primary union took place in the wounds of the elbow and thigh. Passive motions were continued and increased, but at the end of six weeks it was found that he could not use either biceps or triceps muscles, as he had lost all power from long disuse. However, after several weeks he trained the muscles by counting and attempting contraction at the same time. Finally he was able to flex the forearm himself, and since that time improvement has continued.

He has now full motion in flexion, extension, and rotation, and is able to feed himself, put on his own clothes, and to do chores about the house.



FIG. 1, Case I, W. D. Ankylosis elbow. Six months after operation, showing voluntary flexion and extension and power of biceps.

Previous to the operation, he was entirely helpless, and unable to care for himself in any way.

Case II. W. D. The previous history of this case is given under Case I. After the arthroplasty on the right elbow, the patient requested that a similar operation be done on the left elbow. The roentgenogram showed a bony ankylosis at 90° . On January 31, 1914, I did an arthroplasty on the elbow, using the same method as applied on the right elbow. The end-result was a stable useful elbow, with motion from 60° to 160° .

Case III. I. H. had fallen on her elbow four months before she entered the hospital. She had suffered considerably from pain and was unable to use her arm. At this time, I manipulated her elbow under ether and later manipulated it every two weeks in the Carney out-patient department. On account of the limitation in motion, an arthroplasty was advised.

She entered the Carney Hospital on June 22, 1915. At this time, the elbow was slightly tender and motion was limited to 40° . There was no pain, but the joint was somewhat enlarged and the bones felt rough. The roentgenogram showed an old fracture of the lower end of the humerus.

On June 23d, I did an arthroplasty of the elbow-joint, using a free flap of fascia lata. The patient made a good ether recovery. The following day, the plaster was trimmed about the fingers. The fever and swelling of the hand continued for several days until, on the 28th, after the cast was

bivalved, the temperature dropped and the œdema disappeared.

On July 3d, the patient was up in a chair. On the 6th, the dressing showed a slight superficial sepsis. The motion of the arm was very much increased. She was discharged from the hospital on July 15th to report to the out-patient department. There was a gradual return of motion.



FIG. 2, Case II, I. H. Ankylosis of elbow, showing voluntary motion in flexion and extension, eight months after operation.

Case IV. W. M. had fractured his olecranon as the result of a fall. After an open operation in which the olecranon was fastened in place with silver wire, the elbow gave him no further trouble until a year later following a second injury. A box had fallen and hit him on the elbow. Two weeks later, when he reported to the hospital, he was in great pain and showed a discharging sinus from which a piece of wire, which was protruding, was easily removed. Free drainage was established and later the arm was twice curetted.

He was discharged March 21st after a tempestuous illness, to report to the out-patient department for dressings. In July the wounds had healed and the patient was discharged to return in six months for an arthroplasty.

This I did on July 9, 1919, and on his discharge from the hospital on September 4th, he was able to flex and rotate his arm voluntarily. On October 18, 1919, he had voluntarily motion from 158° to 105° . On October 30, 1920, he had voluntary motion from 60° to 135° .

Case V. E. M. The patient's trouble started slowly with general poor health. Two years ago, she became ill with infectious arthritis, which at first affected the knees. There was no history of a neisserian infection. The patient was very much constipated and suffered more or less from tonsillitis. Later, the elbows became painful and could not be straightened out.

Physical examination showed a thickening of the capsule of the left elbow, with about 35° limitation in motion. The left knee showed extension to within 15° of full extension. The patient walked with a marked limp, and flexed knees. General treatment was prescribed, with forcible extension of the knees. As motion in the

arm had shut down, leaving it ankylosed at 100°, an arthroplasty on this joint was advised.

February 25, 1913, I did an arthroplasty, using my fascia lata method.

March 24, 1913, the arm showed no swellings. There was little pain, and the patient's general condition was fair. There was about 15° motion. Gentle manipulation was ordered.

December 16, 1913, the wound had healed by first intention; supination was three-quarters normal, extension was possible to 170° and flexion to 10° to 15° beyond a right angle. The patient could reach the opposite shoulder with the thumb with ease, but could not dress the lower part of the hair. The muscular power was as good as in the right arm. To gain more motion, a forcible manipulation was advised.

December 29, 1913, under ether, extension to within 5° of straight was obtained and flexion to 45°.

January 26, 1914, examination of the arm showed no lateral mobility and no crunching crepitation. Mobility was possible from 150° to 70°.

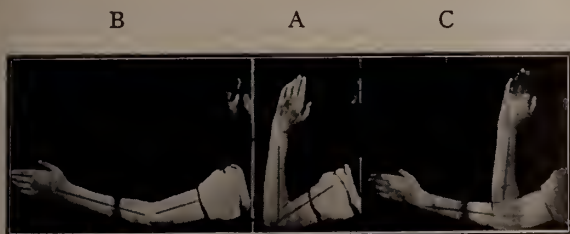


FIG. 3, Case V, E. M. End-result, ten months after arthroplasty.

- A. Voluntary flexion.
- B. Voluntary extension.
- C. Range of motion (not full motion).

Case VI. S. S. This patient was first admitted to the Burbank Hospital, Fitchburg, December 5, 1917, with a subacute neisserian infection. Five years previously the right knee had become swollen and remained so for three months. A month later, the right elbow became swollen and painful. The Wassermann test was positive. She remained in the hospital thirty-eight days, receiving general treatment and was discharged relieved.

She returned to the out-patient department, July 1, 1918. The arm was then put in plaster from wrist to shoulder, to remain on two months. She was told that her elbow would probably become stiff and would require an arthroplasty later.

On January 9, 1919, the patient was advised to have an arthroplasty done, as her elbow had become stiff. Following the operation on February 6th, she had an uneventful recovery. The cast was removed in two weeks, after which passive motion was begun. She was discharged March 18, 1919.



FIG. 4, Case VI, S. S. End-result, three months after arthroplasty.

- At left, voluntary flexion.
- At right, voluntary extension.

Case VII. M. R. For thirteen years this patient had had attacks of rheumatism affecting the ankles, elbows, and knees. The physical examination was negative except for the joints. Both knees were slightly flexed and the right one was ankylosed, showing scars on either side. The right ankle showed some contraction of the tendo-achillis. The left elbow showed good motion except for 10° limitation in extension; the right was ankylosed at 125°.

The patient was admitted to the orthopedic service of the Carney Hospital, September 6, 1910, where very slight improvement took place in the knees and feet under conservative treatment. In October, 1910, on account of the swelling and boggy of the left knee, an arthrotomy was advised. This was done October 19, 1910. Daily manipulations were begun on the fifth day, and an uneventful recovery took place as regards the knee.

As the elbow was stiff and in an ungainly position, operation on this joint was advised. On November 5, 1910, an arthroplasty by the Murphy method was done on this joint.

November 10, 1910, the right hand was considerably swollen and painful, for which pressure and hot fomentations were applied. The skin on the upper part of the arm became somewhat necrotic from poor circulation and later sloughed.

November 30, 1910, passive motion was begun and repeated daily. The first attempt at motion was made and 30° attained. Progress was continuous and a gradual gain in motion was made. Later, massage was ordered for the hand, forearm, and shoulder.

January 11, 1911, about 30° to 40° motion in flexion and extension were obtained. The wound showed heavy granulated tissue. A week later she was discharged from the hospital. Dressings were to be done at home.

February 28, 1911, she was re-admitted to the hospital for manipulation. Normal motion was obtained. Since this time, she has been seen in the out-patient department. There is practically no lateral mobility and the end-result is perfect function.

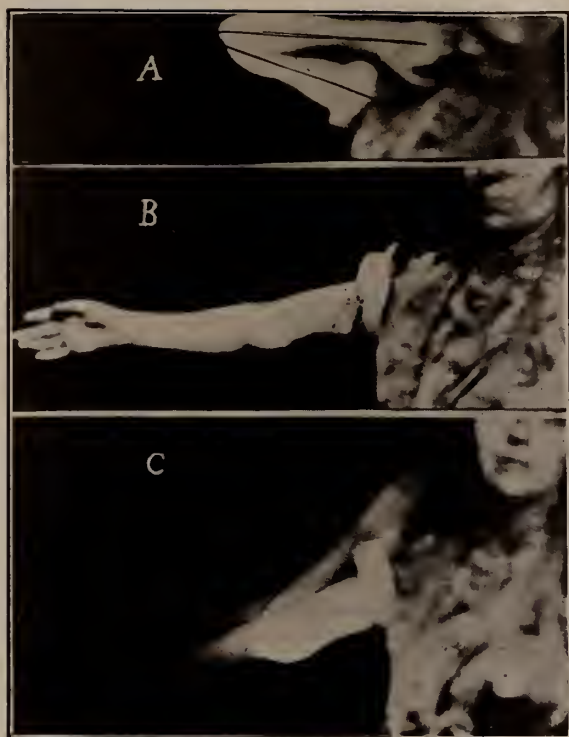


FIG. 5, Case VII, M. R. End-result, fourteen months after arthroplasty.

- A. Voluntary flexion.
- B. Voluntary extension.
- C. Range of motion.

THE KNEE JOINT.

Knee-joint technique, I feel, has been perfected to its highest degree by Putti. My technique differs, in that division of the patellar tendon or elevation of the tibial tubercle with the patella is not done, as these seriously complicate convalescence. The Kocher incision is used and the joint exposed and remodeled in the following manner:

OPERATIVE TECHNIQUE.

The usual preparation is given both legs from the ankle to the groin. I feel it is best to remove the fascia from the opposite leg, thereby minimizing the extent of the operation on the ankylosed leg as well as making it possible to remove more fascia without disturbing the external support of the joint.

The incision is made from just below the inner attachment of the patella tendon, curving slowly over this point to the middle of the external cartilage, and then directly up the outer side of the leg just above the mid-horizontal line, a distance of five to ten inches from the joint proper. As much fat as possible is taken with this incision. After clamping the skin-edges with towels, the skin is dissected to the inner side of the leg, exposing the patella tendon, patella, and tibial tubercle.

A curved incision is then made through the

fascia, beginning in the mid-anterior line, about five inches above the patella, and running between the patella and outer condyle to just below the knee-joint.

The quadriceps tendon is then exposed and elongated. This elongation not only allows better joint exposure, but affords a proper lengthening when we later place the leg in flexion in plaster. This lengthening may also be done by the Bennet method. The patella is then raised from the femur, taking the lower cut portion of the quadriceps tendon, and forcibly retracted to the inner side of the knee, with its inner ligament attachments intact. Some surgeons detach a piece of the tibial tubercle in order to increase exposure, but I have found this unnecessary when the quadriceps tendon is elongated in the beginning. There are also many difficulties when this piece is removed, such as delayed or faulty union, which complicate the convalescence.

The patella in these cases is often found hypertrophied and should be narrowed laterally, as well as thinned and smoothed with a shoemaker's rasp.

The joint being then exposed, a careful study of it is made from X-Rays, and great care is taken to follow the contour carefully. Putti instruments are admirable for this purpose.

Several important requirements must be observed:

1. Be sure to leave a well-defined spine between the tibia condyle, as well as cupping out the upper tibia surface, which will help stabilize lateral mobility.

2. Carefully round the condyle with a Putti instrument and a shoemaker's rasp, making a concavity to fit over the newly formed spine.

3. Actually replace these opposing surfaces, and mould carefully, without any irregular hitches during attempts to flex.

4. Cup out a space into which the patella will articulate. Great care should be taken with this modeling.

5. Remove a large piece of fascia lata ample enough to cover both condyles. The fascia nearest the knee on the outer side is thickest and most serviceable. When this is removed, sew the fascia over the condyle, covering all exposed bone well. Sew posteriorly two inches above the articular surface. The femur is then adjusted to the tibia and the patella is replaced. The outer fascia is united with interrupted chromic catgut.

The elongated quadriceps is then strongly sutured and the skin closed with interrupted catgut. A plaster is applied from the toe to the groin with the knee in 35° to 40° flexion and the leg placed in an elevated position in bed. Opiates are often necessary and may be freely used.

AFTER-TREATMENT.

The temperature, pulse, and pain are carefully watched for any signs of infection.

The cast is split for dressing in two weeks and the leg placed into a ring caliper with 35° flexion, so arranged that this can be changed and passive motion slowly started.

Traction is also applied with this caliper which remains on day and night.

Gentle passive motions are started and increased gently, guided by pain and sensitiveness, which always should be minimized.

Massage is started in five to six weeks for thigh and calf, and the patient may usually walk with crutches about the sixth week.

By means of an overhead extension, the patient may also use passive motions in bed, two or three times a day.

Active motions are started or attempted about the tenth week, preferably with the leg submerged in a tub of water. No actual weight-bearing is allowed until the lateral ligaments have tightened, and a caliper may be applied to assist weight-bearing, depending wholly upon the sensitiveness and pain on use.

Case I. F. O. K. Age 31 years. In 1909, patient had an acute neisserian infection in the left knee. The opening of the joint resulted in an ankylosis. The knee was in good position, but there was no motion between the tibia and the femur. The patella was ankylosed to the femur. Manipulations did not result in a gain in motion. Arthroplasty was advised.

December 14, 1910, arthroplasty on left knee according to the technique as described.

December 23, 1910, out of bed. Daily dressings.

January 5, 1911, cast removed. Posterior shell applied.

January 7, 1911, small amount of weight-bearing. Crutches.



FIG. 7, Case I, F. O'K. 95° flexion. Twelve years after arthroplasty, January, 1923.

January 19, 1911, patient discharged from hospital. In a leather leglet with limited motion. To continue stretching and daily hot fomentations.

January 3, 1923, now twelve years since arthroplasty. No pain and has had no trouble. "No bother at all and can do everything. Sometimes has to stop and think which is the operated knee." Has gained forty to fifty pounds. Leg straight. Good power in quadriceps. Complete extension and 95° motion in flexion possible. Absolutely no lateral mobility. (Figs. 6, 7, 8.)



FIG. 6, Case I, F. O'K. Twelve years after mobilization, showing weight-bearing, January, 1923.



FIG. 8, Case I, F. O'K. Antero-posterior roentgenogram twelve years after arthroplasty, January, 1923.

THE HIP JOINT.

In the hip joint, the method as originally planned by the late Dr. John B. Murphy is substantially the same as that being used today, with the exception that a free fascia transplant is used and that the transplant is placed around the head and neck of the femur, instead of over the acetabulum. Great care is taken to save the old capsule and resuture it over and above the head of the femur. The technique is as follows:

OPERATIVE TECHNIQUE.

The patient is given a very careful two-day preparation of the hip from the rib-line to below the knee. A skin incision is made beginning at the anterior superior spine and running in a horizontal plane to about two inches below the level of the trochanter, at which point it curves over the femur three to four inches below the trochanter in a U-shaped fashion. This flap, with considerable fatty tissue, is elevated, raised to its base line and retracted.

A similar incision is made through the fascia external to the sartorius and sweeps around about three inches below the trochanter, at which point it reaches the base of the femur. The periosteum is separated downward one-half inch and then upward to the base of the trochanter.

With a two-inch osteotome the entire trochanter is removed and elevated, taking with it all the muscle attachments.

An incision is then made through the capsule beginning on the ilium and passing parallel to and in the center of the femoral neck to the base of the detached trochanter. At the attachment of the capsule to the femoral neck it is cut off on both sides for a distance of one and one-half inches and retracted. A blunt dissector then frees the capsule from the neck as much as possible.

A study of the junction between the head and the ilium is made, and then with a curved chisel, covering a small space at a time, the femur is separated from the acetabulum. Care should be taken to follow the outline of the acetabulum, as this is always hard, while the head is usually atrophied.

Finally the head is freed and dislocated. With the Murphy male and female rasp the acetabulum is thoroughly reamed out and the head is thoroughly rounded. Great care should be taken to remove all spicules of bone.

A piece of free fascia lata from the outer side of the opposite leg is removed and sewed around the neck of the femur by interrupted sutures. Then a purse string is tied about it tightly.

The head is reduced. The old capsule is returned and sewed together and to the old attachments as nearly as possible. I feel that this very materially adds to stability and ensures against dislocation or a wobbly, unstable joint.

The trochanter is then pulled down to its old

position and held by resuture of the periosteum with fascia originally elevated. The skin is closed and the leg placed in plaster from the nipple line to the toe, with the leg in 10° abduction, complete extension, and a little pressure over the trochanter.

The cast remains on two and one-half weeks and is then removed and traction applied. Passive motions are started at the third week and should always be within the limits of pain. The patient is encouraged to voluntarily contract the thigh muscles and thereby get voluntary control early.

The patient may walk with crutches in six weeks and bear a little weight in about eight weeks. Convalescence as regards motion varies with the type of individual, but all motion should be within the pain limits.



FIG. 9, Case I, O. P. Voluntary motion in right hip two and a half years after arthroplasty. (Patient has about twice this motion, but is handicapped in further flexion by double ankylosis of the knee.)

Case I. O. P. Age 24 years. Patient had an ankylosis of three years' duration involving both hips and knees, due to an infectious process, probably neisserian in origin.

April 12, 1920. Arthroplasty of right hip by Dr. Andrew R. MacAusland, using the technique as outlined. It was then about three years since the original infection. The operation was followed by some shock. Perfect healing of the wound. Cast applied.

May 17, 1920. Cast removed and passive movements encouraged.

June 5, 1920. Out of bed with crutches.

June 10, 1920. Walking with crutches.

June 12, 1920. Discharged from hospital.

January 13, 1923. No pain. Motion in flexion 40°. Motion in adduction and abduction in arc of 15° to 20°. (Fig. 9.)

Case II. O. P. Age 24 years. The previous history of this case was reported under Case I. Both hips were ankylosed.

November 2, 1920. Seven months after the operation on the right hip, Dr. Andrew R. MacAusland did an arthroplasty of the left hip, using the regular technique.

November 29, 1920. Cast removed. Wound healed by first intention.

December 6, 1920. Passive motions started.

December 17, 1920. Patient up in wheel-chair. Some sensitiveness. Omit motion for one week.

December 26, 1920. Passive motion renewed.

January 4, 1921. Walking with crutches.

January 22, 1921. Discharged from hospital.

January 12, 1923. No pain. Motion in flexion 40°. Good abduction and adduction. Excellent functional result. (Fig. 10.)



FIG. 10, Case II, O. P. Voluntary motion in left hip two years after arthroplasty. (Patient has about twice this motion, but is handicapped in further flexion by double ankylosis of the knee.)

In conclusion, I consider that mobilization of the joints in its present stage has been developed to a point where excellent results may be obtained as a routine in elbow-joint ankylosis; that arthroplasty is indicated always in double ankylosis of the hip, in double ankylosis of the knee or in any combination of these, and in ankylosis of the jaw; that ankylosis of the shoulder and ankle joints, if in proper position, allows good function, and should not be disturbed by any mobilization methods. In ankylosis of a single hip-joint or a single knee-joint, mobilizing methods should be advised with caution and judgment, and should be attempted only by highly trained technical operators who have had considerable experience in mobilizing methods.

OBSERVATIONS ON THE NORMAL BLIND SPOT.*

By SEARLE B. MARLOW, M.D.,
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SINCE the discovery of the blind spot by Mariotte in 1668, the confirmation of its existence by other early writers, and finally the proof of its correspondence with the exit of the retinal nerve fibres from the eye ball to form the optic nerve by Donders in 1852, an extensive literature has grown up about it. This literature was comprehensively reviewed by Gradle and Peter in 1915 and 1916, and need not be rediscussed at this time except in so far as it relates to the normal.

Vander Hoeve in 1911 referred to the differences in size of the normal blind spot as observed by Bull, Wilbrand and Sanger, Young, Wittich and Landolt, explanations of which have been offered by Ovio and by Botto. Vander Hoeve's study was made upon 100 practically normal eyes on Bjerum's tangent screen. The screen was at a distance of two metres from the observer, the boundary of the blind spot being determined by a white object carried from the blind into the seeing area.

Gradle's average figures were determined from the examination of thirteen normal cases on his magnet screen, using a 3 mm. black ball on a white background 60 cm. distant, the test object being carried from the seeing into the blind spot.

Peter states that his average was found after "several hundred examinations" on his campimeter at a distance of 16.5 cm., moving the test object out of the blind spot.

The following is a table representing the averages of these three observers:

	Distance of center to fixation	Horizontal Diameter	Vertical Diameter	
Van der Hoeve..	15° 33' 47"	5° 42' 55"	7° 26' 0"	100 Eyes
Gradle	15° 49'	4° 54' 0"	7° 45' 0"	13 Cases
Peter	15° 42'	5° 28' 0"	7° 0' 0"	"Several Hundred Exams."
Difference	15' 13"	48' 55"	45' 0"	

The close correspondence of the average normal limits found by these writers is an indication of the accuracy with which their observations were made. Gradle tabulated the average findings of Listing, Helmholtz and Young with his own, the differences between their findings amounting to somewhat more than those given in this table. While it is probable that the variations depend to some extent upon the number of observations from which average figures were compiled, the varying distances at which the tests were made, the size of the test object used, whether the test object was carried from

* Read at the Annual Meeting of the Medical Society of the State of New York, at New York City, May 22, 1923.

the blind into the seeing area, or vice versa, the intensity of illumination, and other factors, the fact that the average dimensions of the blind spot as measured by Vander Hoeve, Gradle and Peter with their widely different methods, vary less than 1° seems to point rather to the importance of careful observation both on the part of the patient and the examiner, and to individual anatomical variation than to the method used.

Although the average size and position of the normal blind spot are of great importance as a general guide in differentiating between the normal and the pathological, the variations in its size and position are of still greater importance. With the exception of Vander Hoeve and Eichenberger, none of the more recent investigators give figures for the maximum and minimum measurements of the blind spot in normal eyes. Both Peter and Gradle discuss in a general way the variations which may occur and offer explanations. Gradle quotes Hannover and Thomsen's figures for the horizontal diameter which varied between 3° 39' and 9° 47'. The variations which Vander Hoeve found to exist in 100 eyes he examined are as follows:

	Smallest	Greatest
Horizontal distance from fovea to center of B. S.	12° 1' 28"	18° 0' 15"
Vertical distance from horizontal plane through fovea to center of B. S.	0° 5' 34"	4° 58' 20"
Horizontal Diameter	4° 43' 3"	6° 32' 45"
Vertical Diameter	6° 19' 32"	8° 56' 41"

Eichenberger recorded the results of his examinations in charts which show graphically to what extent and with what frequency variations occurred in the 184 normal eyes that he examined.

In the series of 123 eyes (2 eyes in 56, 1 eye in 11 individuals) here recorded with a few exceptions, the ametropia present did not exceed one dioptre of hypermetropia and astigmatism, and in only a few instances was a low degree (-0.25 D.) of myopia or myopic astigmatism present. The majority consisted of patient with asthenopic symptoms who were examined under cycloplegia, whose visual acuity and fundi were normal and whose eyes showed no pathological changes. A second group is made up of sixteen medical students and others who do not wear glasses and are free from symptoms.

Two methods of observation have been employed, the tangent screen at a distance of one meter for 83 blind spots, and Lloyd's stereocampimeter for 85. Both methods were used to map out 47.

The recording of observations was done in the following manner. On the stereocampimeter a 3 mm. object was used, on the tangent curtain a 5 mm. and a 2 mm., the latter to check the reading of the former. The test object was first carried from the seeing into the blind area.

The moment it disappeared the movement was reversed until the object again became visible, when it was immediately moved back in the blind area. This process was repeated several times in succession until the point of disappearance and reappearance corresponded closely, or the observer was able to state that he saw the edge of the object appear. If the observer had been accurate in his statements with the 5 mm. object on the tangent screen the 2 mm. object appeared and disappeared at practically identical points. When using the tangent screen the position of the head was maintained by the use of a phorometer trial frame set accurately at 1 m. Artificial illumination was used for both methods.

The form of the blind spot has not differed from that commonly described. It has, perhaps, been a little less oval and more round. The marked irregularities depicted by Gradle have not been encountered. In six cases the long axis was oblique, the greatest obliquity amounting to about 27°. In one case the axes of the two blind spots in the same patient were symmetrically tilted 11°. In every instance the upper end was tipped towards a vertical line passing through the fixation point.

In view of the experimental work of M. C. Michalesco, it would appear that the distance between the inner border of the blind spot and the fovea is a more reliable measurement than that between the center and the fovea. He records results of experiments, showing that the horizontal diameter diminishes as the intensity of the illumination is increased, but that the distance between the fovea and the internal border of the blind spot remains unchanged. Consequently, it is quite possible for the position of the center to vary according to the intensity of the illumination. For this reason the horizontal position of the blind spot should be determined by its internal border rather than its center.

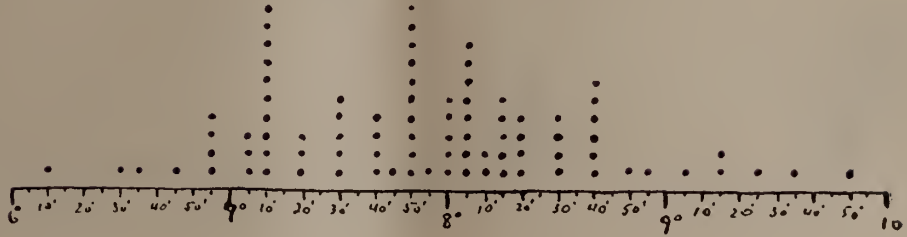
It is common knowledge that the distance between the fixation point and the internal border of the blind spot varies not only in different individuals but also in the two eyes of the same individual. In 56 individuals this distance was greater for the right eye in 25, for the left eye in 24, and equal in 7. In 61% this difference amounted to less than 30', in 39% to less than 1°5' with one exception. This was a case in which the axis of one blind spot was oblique, the difference between the two eyes amounting to 2°30'. The actual figures are recorded in diagrams No. 1 and No. 2.

What significance this varying distance has other than that it is an expression of variation in nature cannot be stated at this time, although it is probable that it has none.

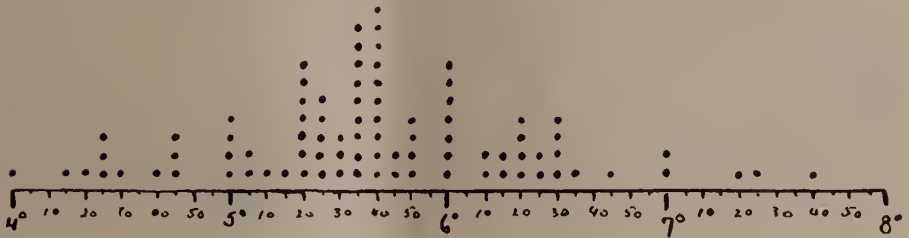
DIAGRAM NO. 1.

Stereo Campimeter.

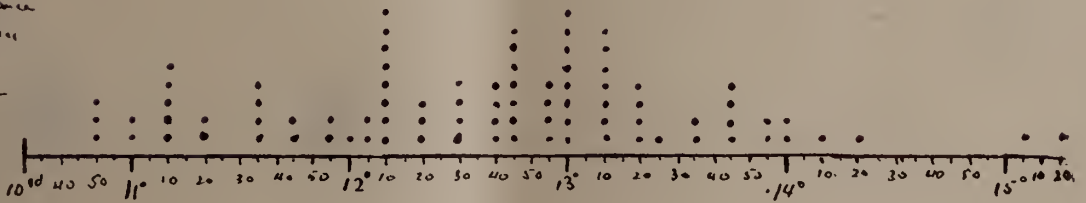
Vertical
Diameter



Horizontal
Diameter



Distance
from
F.



Overlapping

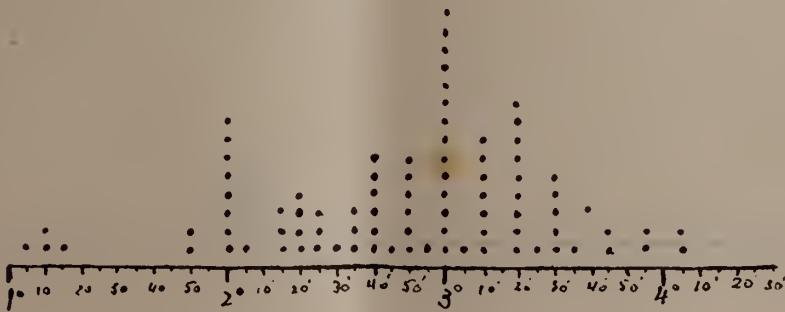
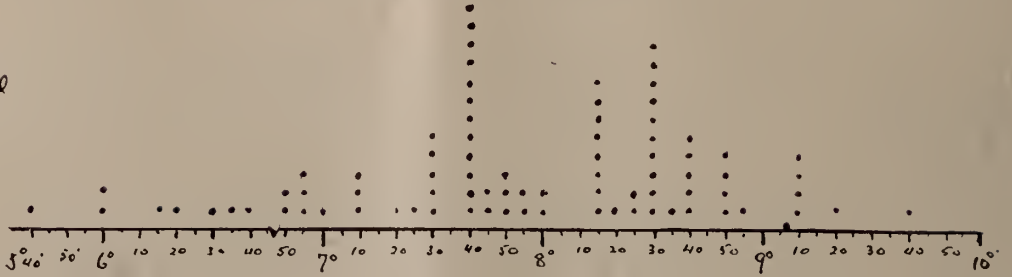


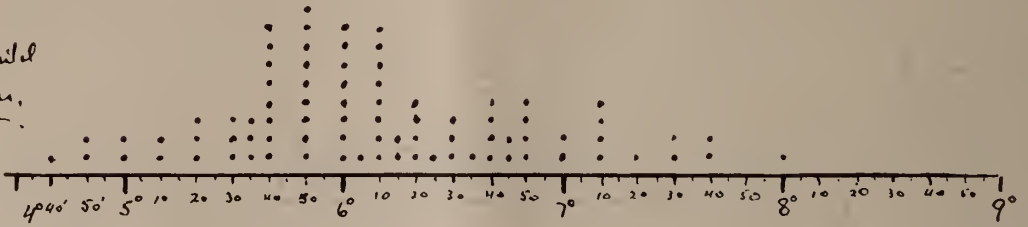
DIAGRAM NO. 2.

Tangent Screen

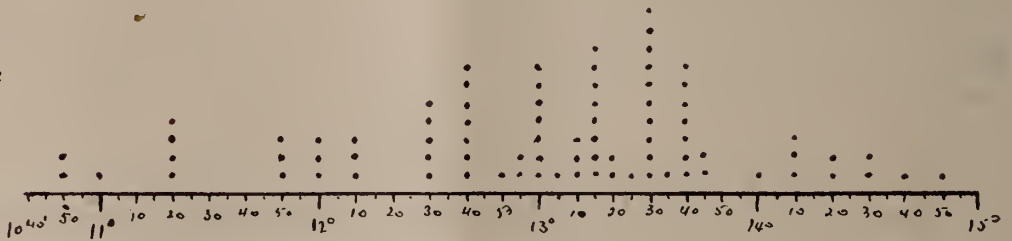
Vertical
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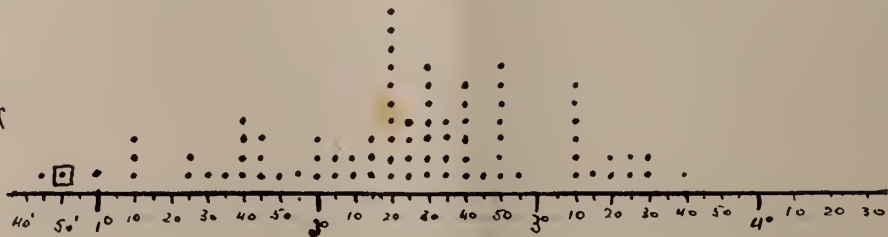
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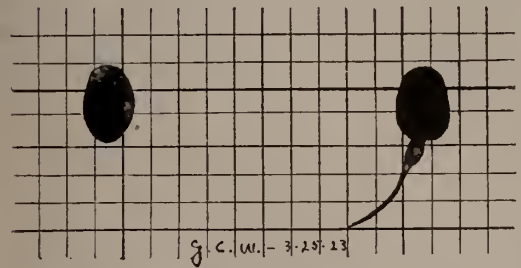
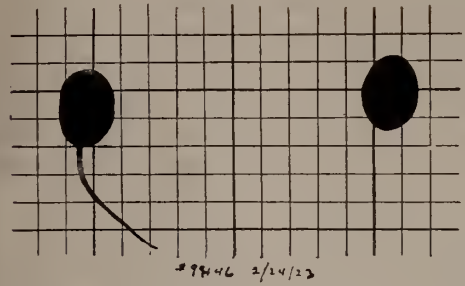


Overlapping



The vertical position of the blind spot in relation to a horizontal plane passing through the fovea is of much greater importance as Rössler has clearly shown. Not only may variations in its vertical position be due to structural differences, but it also is dependent upon the position of the eye in relation to its extra-ocular muscles, i. e., to torsion. Rössler agreed with Vander Hoeve in general, and showed further to what extent the vertical position varies with lateral rotation. To emphasize the importance of position he cites the following case:

"A young officer came under observation in July, 1918, because of pain in his left eye. In 1917 he had suffered from frontal pain and had been operated upon because of catarrh in his frontal sinuses. The pain completely disappeared after this treatment but had returned in the last fourteen days. Ophthalmoscopically, there was slight reddening of the nerve head without real inflammatory changes. The pain had the distribution of the first branch of the trigeminus. Search for Vander Hoeve's symptom resulted in finding an enlargement of the blind spot for red below of $1\frac{1}{2}^{\circ}$. Further



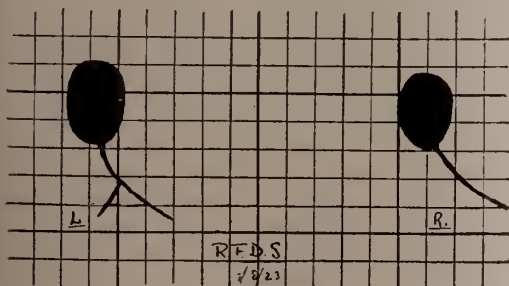
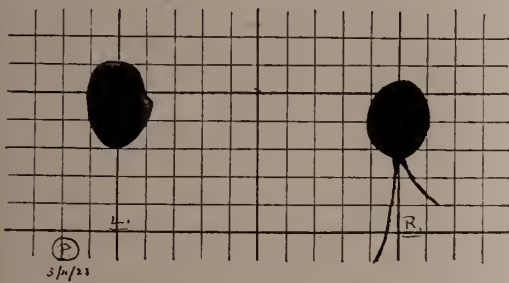
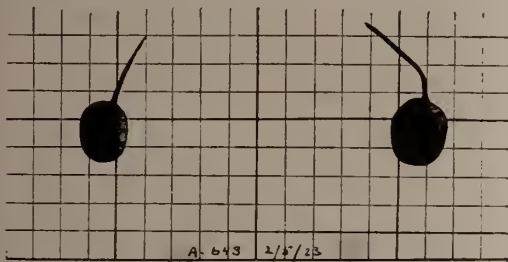
study showed that the whole blind spot had become lowered 3 cm.; i. e., $1\frac{1}{2}^{\circ}$. At the first examination the boundaries of the blind spot were above 3 cm., below 12 cm.; inner side 26 cm.; outer side 37 cm. Upon re-examination, with careful fixation of the head, they were found to be 0 above, 15 cm. below, inner side 25 cm., outer side 36 cm.

Rössler points out that such differences in the vertical position are capable of producing real errors in diagnosis.

In this series the vertical position as determined by the amount the blind spot extends above a horizontal line passing through the fixation point was the same for the two eyes in 5 cases, the blind spot of the R eye having a higher position in 30 cases, that of the L eye in 21 cases. In one patient who had lost his right eye as a result of an accident when a child, the blind spot of his left eye was situated entirely below this horizontal line. See diagrams No. 1 and No. 2 for figures.

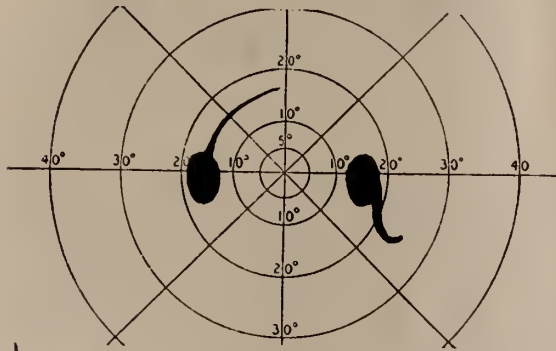
The variations in the vertical and horizontal diameters are shown in the diagrams. The horizontal diameter was measured at its greatest width in contrast to Eichenberger's figure, which was for the width of the blind spot on the horizontal line passing through the point of fixation.

A systematic study of the limits for color has not been made in all cases. In a few cases, however, the limits for red have been observed, but only the general statement can be made that some observers recognized the color when the object first appeared in the field, while in other instances the color was not recognized until after the recognition of the test object itself. This agrees with the findings of Vander Hoeve,

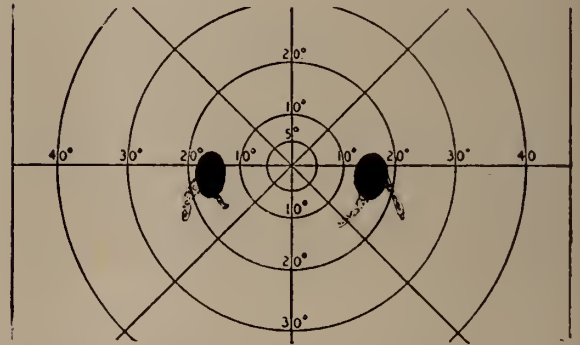


who found a relative scotoma for color about the limits for white in 58 of 100 eyes, and no scotoma in 40. In two eyes the color perception of the patient was too weak to record the results. Peter was unable to confirm Vander Hoeve's observations. Gradle and Eichenberger do not refer to this part of the examination.

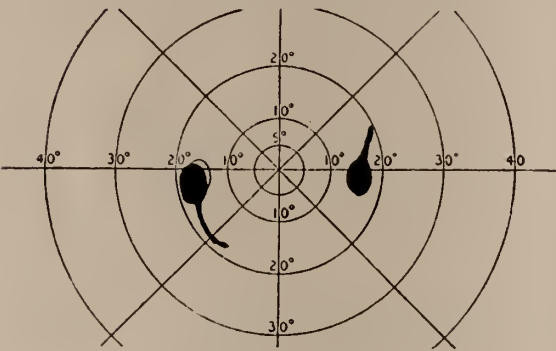
In a small series of patients the technique of Igersheimer has been followed, in an effort to determine in what percentage of cases it is possible to map out the course of the larger retinal vessels. Igersheimer describes his method as perimetry perpendicular to the course of the nerve fibres.



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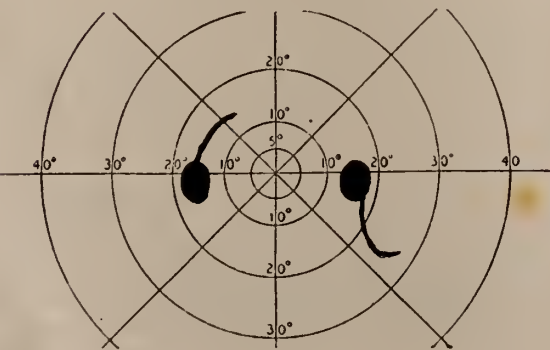
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J.H.W. 2/28/23

After mapping out the limits of the blind spot the test object is carried about it in a circular manner at some distance (4-5 cm.) from it, and the observer required to note whether or not it disappears momentarily or becomes less sharply defined in places. It is only after the encircling has been completed two or three times that the test object will disappear at places above and below the blind spot, corresponding to points from which the retinal vessels come off the disc. Of 34 cases in which this procedure was carried out, it was possible to map out a scotoma corresponding to a large retinal vessel in 18 cases. In 9 cases such a scotoma was traceable in both eyes, in 9 cases in one eye. No regularity as to the location

above or below the blind spot was noted. In some instances it was found below in both eyes, in others below in one eye and above in the other. In three cases rather indefinite wide scotoma were found both above and below the blind spot in one eye. In one case two were found coming off the lower and temporal borders of both blind spots (upper nasal margin of optic disc). In two cases definite branching was detectable, in one, at some distance from the blind spot, in the second at the lower border. In looking for these scotoma a 2 mm. test object was used with the tangent screen at a distance of 1 m. As Hess has pointed out, a 2 mm. test object at this distance, subtends an angle less than half of that subtended by a large retinal vessel. Igersheimer believes these scotomata to be fatigue phenomena, and considers them to be physiological.

Analysis of the measurements of the blind spot made by the two methods employed agrees with the comparison of the dimensions of Vander Hoeve, Gradle and Peter. The differences between the measurements made on the stereocampimeter and those made in the tangent screen amount to less than 1° for all measurements in 79.7% of the 47 blind spots examined by the two methods. The dimensions of the blind spot are greater in both diameters when measured on the tangent screen in the majority of cases. The reverse is true in the minority, the measurements being the same in a very small number. The same is true in regard to the distance between the fixation point and the inner border of the blind spot.

The vertical position of the blind spot was higher when measured on the stereocampimeter in 73% of the cases. Two explanations for this are possible. The first that the position of the patient's head was more uniform on the stereocampimeter than before the tangent screen. The second that binocular fixation plays an important part in the determination of the vertical position. The following table shows the amount the blind spot exceeds above the level of the fixation point:

Right Eye		Left Eye	
Stereo.	T. S.	Stereo.	T. S.
2° 20'	1° 40'	3° 20'	2° 50'
4° 5'	3° 40'	3° 10'	12° 35'
2° 25'	2° 5'	2° 25'	2° 30'
3° 25'	1° 50'	3°	2° 20'
2° 0'	0° 45'	3° 0'	2° 30'
3° 20'	2° 20'	3° 20'	3° 20'
3° 10'	1° 30'	3° 0'	3° 15'
3° 10'	2° 50'	3° 30'	3° 10'
4° 5'	2° 40'	1° 10'	1° 35'
2° 50'	3° 25'	3° 45'	1° 40'
2° 50'	2° 20'	2° 0'	1° 25'
1° 50'	2° 15'	2° 20'	1° 40'
2° 0'	2° 20'	3° 20'	2° 35'
3° 30'	3° 10'	2° 20'	2° 10'
3° 20'	3° 20'	2° 15'	3° 30'
3° 0'	2° 40'	3° 55'	3° 30'
3° 0'	2° 20'	2° 40'	2° 50'
3° 30'	3° 10'	3° 20'	2° 25'
2° 35'	2° 20'	2° 35'	2° 15'
2° 30'	2° 40'	2° 20'	1° 25'
3° 0'	1° 10'	2° 50'	1° 45'
2° 50'	2° 0'	2° 25'	2° 10'

Study of these observations demonstrates not only that the vertical position is higher, but also that there is a leveling up of the two blind spots when binocular fixation is employed. These findings agree with the observations already made by Rössler.

The average dimension of the blind spots studied in this series are:

AVERAGE DIMENSIONS OF THE BLIND SPOT			
	Stereocampimeter 85 B. S.	Tangent Screen 83 B. S.	Difference
Vertical Diameter	8° 2'	7° 56'	6'
Horizontal Diameter	5° 48'	6° 9'	21'
Distance between inner border of B. S. and fixation	12° 27'	13° 0'	33'
Amount the B. S. projects above the level of fixa- tion	2° 47'	2° 24'	23'

The smallest and largest dimensions encountered are:

	Smallest		Greatest	
	Stereo.	T. S.	Stereo.	T. S.
Vertical Diameter	6° 10'	5° 40'	9° 50'	9° 40'
Horizontal Diameter	4° 0'	4° 40'	7° 40'	8° 0'
Distance between inner border and fixation	10° 50'	10° 50'	15° 20'	14° 50'
Amount the B. S. extends above level of fixation	1° 5'	50' below	4° 5'	3° 40'

In diagram No. 1, all the measurements made on the stereocampimeter are plotted.

In diagram No. 2, all the measurements made on the tangent screen are plotted.

Although the number in this series is too small to allow a definite statement, it seems fair to suggest that the plotting of the dimensions of a large number of blind spots would result in curves similar to that which has been found for other bodily characters, inches of chest measurement for example. In other words, that the dimensions of the blind spot vary in accordance with the natural laws of variation.

It is obvious that when the dimensions of the blind spot fall within normal limits it cannot be positively said to be normal unless the result of an examination at some earlier period is available for comparison.

Discussion.

DR. BEN WITT KEY, New York: I believe Dr. Marlow, in this paper, brings to our attention the most important question in the study of Mariotte's blind spot, that is—what constitutes its *average* normal dimensions, its normal limits (enlargement) and its average normal location. And since variations in the size, outline and position of the normal blind spot are almost as numerous as the variety of normal papillæ, it seems to me at once evident that the *essential* consideration in this discussion is that of accuracy of procedure and choice of method. As to the latter consideration, which more or less includes the former, it is a matter of employing either the Bjerrum screen at one or two meters (Van de Hoeve), or the

magnet screen at 60 cm. (Gradle), or the campimeter (Peter), or the stereo-campimeter (Lloyd). Each, with its advantages and disadvantages but in the hands of its maker or its advocate, has proved to be consistently accurate for comparative study, although each investigator must establish his own standard of the normal. My own preference and that which I employ, is that of the Bjerrum tangent plane at one or two meters before northern light exposure, the size of the test object being relatively as small as can be clearly detected beyond the temporal limits of the blind spot (2mm.) The manner of exposing the test object is by carrying it from the seeing into the blind area and immediately back into the seeing area, when a line of sharp demarkation may be plotted, or relative scotoma about the blind spot may be delimited. Now the test object may be carried slowly about the border of the blind spot in order to detect any irregularities and in some instances the projected blind lines of vessel trunks. The patient's head is fixed in the natural but correct position; the distance from the screen is measured, not with a tape, but with a meter rule, and the point of fixation on the screen is carefully placed in a line which is the intersection of the vertical and horizontal planes of the eye.

As for the *average* size and position of the normal blind spot, it is now pretty well recognized, I believe, that each investigator must establish his own standard of the normal, this depending of necessity upon the method employed, and the conditions under which the plotting is carried out. For all practical purposes the small difference in degree, found by the several methods employed and so graphically presented by Dr. Marlow, may be erased as error and may be confined within the estimate of the *average* limits of the normal, that is—horizontal diameter, 5 degrees plus; vertical, 7 degrees; center to fixation point, 15 degrees plus. In this connection, however, one is mindful of the variations due to error or conditions of plotting with a given method which are accounted for by the disposition of the patient and that of the investigator, by the character of the illumination, by the size and true color of the test object, by the manner of exposing the test object, and by the accurate fixation of the patient's head. For example, manipulation with artificial illumination, if not precisely corrected for diverging rays and reflexes, may yield a larger blind spot than when plotting by northern light exposure; on the other hand, when properly corrected as in Gradle's magnet screen or with a specially devised artificial illuminator, a finely drawn blind spot is delimited.

Variations in the location of the blind spot are recognized as dependent in most instances upon structural or anatomic differences, but it may also be due to inaccuracy on the part of the observer, because the position of the fixation point must be

at a point in the line of intersection of the vertical and horizontal planes of the eye in order to avoid error. Especially is this true in the determination of the vertical position of the blind spot in its relation to the correct horizontal plane of fixation. The variations in this latter determination may also be due to tilting of the patient's head and torsion, both of which errors are not so apt to occur when the stereo-campimeter is used, and which also can be obviated by a correct understanding of it before the Bjerrum curtain.

Dr. Marlow is to be congratulated upon an interesting and instructive contribution to the study of the variations in the normal blind spot through his personal investigations and through his graphic representation of these and comparative results. I agree with him in his conclusion that no one can logically state that the blind spot in a specific instance is normal or pathological when its dimensions correspond to those of the *average* normal blind spot. On the other hand, we are mindful that we may be dealing with a pathological enlargement and yet one which is within the average normal limits (or a large normal blind spot). But then, with repeated plotting of the average size blind spot for slight variation and irregularity, with careful consideration of relative scotoma and the symptoms complained of, together with repeated ophthalmoscopic examination and comparison with the fellow-eye, one may arrive at an early diagnosis of inestimable value to the patient.

FACTORS CONCERNED IN THE PRODUCTION OF LESIONS OF THE EYE IN EXPERIMENTAL SYPHILIS.*

By WADE H. BROWN, M.D.,

and

LOUISE PEARCE, M.D.,

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(From the Laboratories of the Rockefeller Institute for Medical Research, New York.)

SYPHILIS is a systemic disease due to a specific infection. It is characterized by an orderly development of lesions in various parts of the body and by more or less profound constitutional symptoms. It is now known that the infection becomes generalized almost from the time of entrance of spirochetes, still, neither symptoms nor lesions appear immediately. Moreover, if the infection progresses without interference, or if insufficient treatment is given, there are periods during which all outward manifestations of disease disappear and eventually a condition of so-called latency may be established, in which the disease is not apparent, and it is difficult to obtain any conclusive evidence of the continued existence of the infection.

* Read at the Annual Meeting of the Medical Society of the State of New York at New York City, May 23, 1923.

In like manner, it is known that individuals who acquire their infection before birth may harbor spirochetes for years with little or no evidence of disease, and it is equally certain that infection may exist from birth or even be acquired in later life without necessarily giving rise to any characteristic clinical manifestations of syphilis, either local or general.

Viewed from another standpoint, it may be said that syphilis tends to pursue a definite course involving one system of organs after another and theoretically, if the conditions were the same in all cases, there would be no deviation from this course. The results of infection do vary, however, and it may be assumed that any deviation from the established course of events is referable to some cause.

It is not until the existence of such conditions as these is realized that the necessity for a clearer understanding of the biology of syphilitic infections is appreciated. It is extremely difficult to study cause and effect in human syphilis and hence it is often difficult to arrive at any conclusion as to conditions which favor or prevent the occurrence of one form of disease or another. However, many of these problems can be studied to advantage in laboratory animals. This is especially true of certain lesions of the eyes, such as keratitis and iritis, that are of relatively frequent occurrence in rabbits inoculated with *Treponema pallidum*.

From a study of the experimental infection in these animals, it has been found that involvement of the eyes occupies a clearly defined position in the evolution of disease; that there are certain conditions that favor the development of eye lesions and others that tend to prevent their occurrence. Hence, in discussing factors that are concerned in the occurrence of these lesions, it is necessary that we have a general understanding of the biology of syphilitic infections.

The prime factors concerned in shaping the course of syphilitic infections are three in number. The first to be considered is the causative agent of the disease—the ability of the organism to grow and to resist the destructive agencies of the body, its affinity for or adaptation to growth in given tissues, its ability to reach given locations in a viable condition, and finally the ability of the organism to inflict injury whether by direct action at the place of growth or by indirect action through the tax imposed upon the defensive powers of the host.

The second group of factors concerns the resistance of the host. Here we have to distinguish between threshold resistance and actual individual animal capacity. The one has to do with the initial result of implantation, the other with the eventual outcome of the infection. In either case, one has to consider individual tissues and the organism as a whole, including adaptation to the

growth of spirochetes, susceptibility to injury, the sensitiveness of response, and the ability to react and to withstand injury.

Finally, it should be recognized that the circumstances under which infection occurs or develops are in themselves of great moment. The number of infecting organisms, the vitality of the organism at the time of implantation, the portal and the mode of entry, and such apparently remote influences as climatic or meteorological conditions have all been shown to play important parts in determining the course of infection.

No fixed value can be assigned to any of these factors. Some of them tend to increase the severity of disease or predispose to the development of certain types of lesions, while others neutralize these effects or tend to reduce all manifestations of disease to a minimum. It is perfectly obvious that a given result might be brought about in a variety of ways, hence, any attempt to establish causal relationships without due regard for all such elements as those enumerated is almost certain to lead to confusion. In fact, unless one is extremely cautious, he is apt to magnify the importance of that particular factor or group of factors to which he has given the greatest consideration.

In the case of syphilis, more attention has been paid to the spirochete during recent years than to the host or to conditions that exercise their influence through the host. Thus, there has been a strong tendency to attribute clinical variations in the course of the disease to differences in the biological properties of spirochetes rather than to differences in animal constitution or to the circumstances under which the infection was contracted.

Nevertheless, the focusing of attention upon the causative agent of syphilis has been productive of much good. It has led to a critical analysis of this factor in the equation and, in time, it will be possible to evaluate its importance in relation to others.

We cannot enter into a detailed discussion of this phase of our subject, but it may be recalled that the conception of so-called "strains" of syphilitic virus is founded upon clinical observation and antedates any knowledge of the causative agent of the disease. For the most part, the discussion of this subject has centered about syphilis of the central nervous system but the conception is equally applicable to disease of the eyes. In fact, the first experimental work was carried out in connection with lesions of the eyes and no stronger evidence in support of the conception of selective affinity has been submitted than that first advanced by Nichols and Greene and by Reasoner based upon the production of lesions of the eye grounds.

It has been shown experimentally that the eye is highly susceptible to infection with *Treponema*

pallidum. Lesions are readily produced by direct inoculation and are of relatively frequent occurrence as manifestations of a generalized infection. Moreover, the liability of the eye to involvement is greater than that of most tissues since it is not protected to an equal extent by the general reaction that takes place in other parts of the body.

On the other hand, there is no doubt that the particular spirochete concerned in certain infections may be regarded as a predisposing factor but why this tendency to the production of eye lesions should exist, it is difficult to say. Almost any recently isolated strain of *Treponema pallidum* tends to produce a considerable number of eye lesions, chiefly keratitis. However, it is certain that some organisms are more prone to the production of lesions of this class than are others and that there may be distinct differences in the character and severity of the lesions produced by organisms derived from various sources.

Nevertheless, none of these properties appears to be attributable to fixed biological characteristics. With continued passage, the incidence and severity of eye lesions may increase or diminish and both the character of the lesion and the time of its occurrence may be affected. Finally, with a given strain of *pallidum*, a change in one direction may be followed by a change in the opposite direction. The occurrence of such variations would suggest that the tendency displayed by certain organisms to the production of particular types of lesions represented an expression of an existing state of balance between organism and host rather than an inherent predilection on the part of the organism.

This interpretation is supported by the fact that we have been able to show that all of the pathogenic properties of a given strain of *Treponema pallidum* can be modified to an extreme degree by merely varying the conditions of passage. For example, beginning with a strain of *pallidum* capable of producing a severe generalized disease (Nichol's Strain V), one line of transfers was maintained by making inoculations from animals with latent infections or from inactive or regressing lesions, while the regular stock transfers of the same strain were made from early or active lesions. At the end of two years, the pathogenic properties of these two substances were compared. The stock strain, having been passed under conditions which tended to give it an advantage over the animal, was still highly virulent and produced a severe generalized infection in a majority of the animals; while the other sub-strain, having been transferred under conditions which placed it at a constant disadvantage, had lost a great part of its virulence. The primary lesions were comparatively small and of short duration and none of the animals developed generalized lesions other than a metastatic orchitis.

This experiment shows clearly the limitations that surround the doctrine of strains. There is a great deal of evidence to show that under a given set of conditions and at a given time in the life history of an organism, the properties possessed by it may increase or decrease the liability to the occurrence of lesions of given types. However, we are not justified in assuming, that there are distinct strains of *pallidum* capable of producing entirely different types of disease, unless it be clearly understood that such properties may be lost or acquired by any strain and that in any case the action of such organisms is subject to the operation of outside influences which may completely nullify any existing tendency on the part of such organisms.

Turning to the part played by the host in the evolution of disease, there are a number of facts to be considered. It has been shown that spirochetes multiply more rapidly and lesions are produced more readily by inoculations made in certain locations than in others and that the same conditions apply to the development of secondary foci of infection. At present, it is impossible to say whether this is due to positive or to negative factors. In some instances, the adaptation of the part to the nutritive requirements of the spirochete appears to be of considerable importance, as in the case of the testicle. Again, growth may be determined by the local or general resistance that can be brought to bear upon an infection initiated at a given point and the evidence available would indicate that this is of greater moment than passive nutritive adaptation.

On the other hand, the extent and severity of disease are not necessarily proportional to the rate or extent of multiplication of the spirochetes. On the contrary, it has been shown that efforts to increase the severity of the infection by multiple focal inoculations, may be completely offset by an increased reaction on the part of the animal. At the same time, it should be recalled that the reaction of the infected animal is proportional to the demand. For these reasons, an infection that begins insidiously may progress much further than one that assumes more severe proportions during its early stages.

Obviously, the susceptibility of the tissues to injury and the sensitiveness of the animal to such injury have much to do with the reaction that takes place. In its final analysis, therefore, the course of the disease may be determined to a large extent by the sensitiveness of the animal and the promptness and efficiency of the defensive reaction.

These are matters of animal constitution and of animal economy. No two animals react to syphilitic infection in precisely the same manner. In one animal, no characteristic lesion of any kind may be produced, although it can be shown that the animal is infected, while in another animal of

the same series, there may be the most extensive lesions and the disease may progress with little or no interruption for months or even years or until it causes the death of the animal. Such extremes are rarely encountered but similar differences are met with in any series of 5 to 10 animals and the proportion of animals with high, low, or intermediate degrees of resistance is relatively constant, being roughly 1:1:3, respectively.

Variations in resistance due to sex and to physiological states are equally striking. Females, as a class, are distinctly more resistant to syphilitic infection than males and, as a rule, the pregnant female is more resistant than the non-pregnant, although pregnancy, in some instances, has the reverse effect.

Age also has to be considered, but as yet, no data are available for an accurate evaluation of the effect of age upon the course of syphilitic infections.

In the same way and for like reasons, one may obtain types of disease which vary greatly by merely modifying the general conditions under which a syphilitic infection is initiated. An infection produced by spirochetes whose vitality is low will not be the same as one produced by organisms that are highly active. In like manner, an infection produced by intratesticular inoculation tends to pursue a different course from an infection produced by intracutaneous inoculation, or by inoculation of a mucous membrane. Again, the character of the disease that one can produce with a given strain of *Treponema pallidum* changes with the season of the year or from year to year. Thus, during the summer months, the disease is always comparatively mild while the periods of greatest severity are spring and fall.

Finally, it is by no means certain that all of the lesions that occur as a result of syphilitic infection owe their origin to a local action of the spirochetes. At any rate, susceptibility to injury undergoes a marked alteration so that the lesions that occur at one stage of the infection usually differ from those of another and the destructiveness of the lesions is in no wise determined by the number of organisms present but by the condition of the host. This change in the character of the local reaction is indicative of a more fundamental alteration in general animal economy and there is considerable evidence to show that other lesions may occur in the course of syphilitic infections which are attributable to a disturbance of animal economy rather than to a direct action of the spirochetes.

From this brief review of factors that play a more or less important part in determining the course of syphilitic infections, it is at once apparent that many conditions may favor or prevent the occurrence of lesions of any given class. We

shall not attempt to indicate all of the possibilities that exist in the case of ocular involvement. It is important to bear in mind (1) that lesions of the eyes occur in advanced infections, (2) that the majority of lesions arise from an infection in the episcleral tissues immediately surrounding the cornea, (3) that for the most part the local disturbance is out of all proportion to the severity of the local or general infection and that these lesions are especially prone to relapse, (4) and finally that lesions of the eyes rarely occur in animals that show a prompt and vigorous reaction except in cases where the disease proves to be unusually severe.

From a consideration of these facts, it is obvious that the element of foremost importance in all cases is the reaction to infection. In many instances, involvement of the eyes is due merely to a low grade infection which fails to arouse a full measure of opposition on the part of the animal. In other instances, the situation is entirely different. The infection assumes severe proportions from the beginning and progresses in spite of any effort on the part of the animal to prevent its progress. Under such circumstances, the lesions in the eyes occur relatively early and are frequently of a severe character.

Still, as has been pointed out, certain organisms are more prone to produce lesions of the eyes than are others. Nevertheless, it is doubtful whether this tendency can be attributed to any special affinity for the eye. From what is known of the biology of syphilitic infections, and the variability of such tendencies, it is more likely that manifestations of this kind are referable to some peculiarity in the reaction which these organisms arouse or in their resistance to ordinary processes of control.

Finally, while it is generally assumed that the ocular lesions of generalized syphilis are manifestations of a local infection, it is by no means certain that this is always true. Spirochetes have been demonstrated in some instances but they are usually found in comparatively small numbers and dark field examination of such lesions as those of the cornea not infrequently give negative results. We know of at least one instance in which inoculations made from such a lesion were also negative.* Moreover, we have observed one case of congenital keratitis and iritis in an animal born of syphilitic parents, in which there was no other evidence of actual infection. There is a distinct possibility, therefore, that disturbances of animal economy may play an important rôle in the occurrence of syphilitic affections of the eyes, either as a predisposing factor or as the actual cause for some of the more obscure alterations that occur in syphilitic subjects.

* Dr. Alan M. Chesney and Dr. Alan C. Woods, Johns Hopkins University, personal communication.

THE SURGICAL RESULTS FROM OPERATION FOR CONVERGENCE STRABISMUS.*

By JAMES W. WHITE, M.D.,
NEW YORK CITY

SINCE the early days of the operation for the correction of convergence strabismus there have been attempted almost innumerable varieties of advancements, resections, tuckings and the like for improving the action of the external rectus and nearly if not quite as many operations for lessening the action of the internus, the complete and partial tenotomy, either with or without scleral anchorage, and stretchings being used for the purpose.

It has not been my privilege to examine as post-operative cases many of the various operations that are used, since the operation performed chiefly in and about New York is some modification of the advancement or resection.

What strikes one in examining these cases is the variation in the results obtained where the technique has been the same and where the operator has expected equally good results. A large percentage are corrected satisfactorily while only too many are either overcorrected or undercorrected.

In observing these failures, it has often been possible to determine the reasons for the poor results while in other cases the cause was determined only on re-operation.

The majority of the cases of convergence strabismus seen by the ophthalmologist are those of the hyperope. These begin as convergence excess where the deviation for distance is slight, but more or less pronounced for near. Later there is developed a divergence insufficiency where the deviation for distance becomes much more marked but still does not keep pace with the deviation for near. Finally the muscles themselves take part in the development of the squint and we have an overacting internus of one or both sides, an underacting externus of one or both sides or the externus and internus may both be involved and this again in one eye only or in both eyes. In this final stage, the deviation for distance and near are the same or nearly so.

In addition to this general type of strabismus we have the less frequent cases in which the squint is produced by a paralysis of the externus which may be congenital, traumatic, or the underaction may be due to a faulty development of the muscle as is seen in the syndrome described by Duane, Wolff and others.

Cases in which the convergent strabismus is complicated by a vertical deviation are frequently seen and always require considerable study to determine which is the primary condition and

which element, when operation is contemplated, should be corrected first. The most frequent cases of this type are those in which there is an underaction of the superior rectus, due either to faulty structure or innervation. This produces usually a secondary deviation of the inferior oblique of the opposite eye, resulting in a marked vertical deviation.

Finally we have the convergence strabismus due to a divergence paralysis.

Our failures seem to be mainly from three sources:

1st. From improperly judging the variety of squint with which we are dealing.

2d. From trying to evolve some operative procedure that will be equally effective in all cases of squint.

3d. From faulty technique.

A few examples of failures observed may serve to illustrate:

Case I. Girl, age 16, convergence strabismus since childhood. Hyperope of 3D. operated on at the age of 8 years. The operation which was a Reese resection was performed by one of our best operators and from point of technique the result was perfect. Without correction there was an exotropia of 5Δ for distance but an esotropia, for near, of 25Δ . With any part of her correction the exotropia for distance increased and the esotropia for near was reduced.

The excursion test showed an overacting internus of the eye operated on, but in abduction the externus was normal or only slightly in excess. A tenotomy of the externus and internus of the same eye resulted in practically orthophoria for distance and near with $+2.00$ sphere or less. With $+3.00$ sphere there was still an exophoria of 6Δ for distance but orthophoria for near. The failure here was in not attaching enough importance to the action of the internus. Since a resection would correct the amount of squint for distance this was considered sufficient, but the element of convergence excess was of prime importance and a tenotomy should have been done with a less extensive resection.

Case II. Girl, age 9, convergence strabismus since 2 years old. Refraction right and left $+4.50 + 0.50$ cyl. The history was that, following an advancement, the eyes remained straight for two or three months and then crossed again. Some months later an advancement of the externus of the opposite eye was done with a similar result. When first seen by me, she had a convergence strabismus of 25Δ with a vertical strabismus of 15Δ . The deviation was practically the same for distance as for near.

Excursion tests showed a paresis of the right superior rectus with a spasm of the left inferior oblique. A tenotomy of the inferior oblique relieved entirely the vertical squint and the glasses

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relieved the remaining convergent squint. With two elements present as in this case either of which may produce a convergence strabismus, my experience is that the best results are obtained by correcting the vertical squint first. In this case had the vertical deviation been first corrected probably one advancement would have corrected the lateral deviation permanently.

A common error, that hardly needs a specific case to demonstrate, is in the cases of convergence strabismus with a remote near point of convergence. Here frequently the usual advancement and tenotomy are performed only to have a divergence strabismus development later. With a remote convergence near point even though the adduction is normal if the advancement of one externus is not sufficient the externus of the other eye should be advanced rather than inhibit the convergence by a tenotomy.

An error occasionally seen, is in an advancement and tenotomy on a case of a retraction syndrome. The results are usually bad. Only in those cases where the convergence is normal or nearly so, should an operation be performed and then a tenotomy which does not limit the convergence may be attempted or probably safer still a recession of the internus.

Apart from accidental causes of failure such as infections, tearing out of sutures and the like, the operator by errors of technique may produce undue traumatism or hæmorrhage.

In such cases the excursion tests often show a decided limitation of abduction or adduction. On dissection it is found that adhesions have formed well back, often beyond the equator. Consequently the point of traction is from the most posterior adhesions, hence the lessened action. Tying the sutures too tightly may result in a slough and if occurring early may allow the muscle to recede and result in a squint nearly if not quite as marked as before operation.

Cases of reoperation present special difficulties. Careful freeing of the tendon from all adhesions with as little traumatism as possible is very important. Often in these cases we find a deficiency of conjunctiva from faulty technique in the original operation, and it is with some difficulties that we obtain a sufficiently ample and movable conjunctival covering. Here the single stitch operation of Oliver or some modification of it often serves well. The conjunctival incision is made about six to seven mm. from the limbus, the conjunctiva is then freed from the tendon behind and from the sclera up to the limbus. A double armed suture is made in the tendon and a scleral-stitch as near the limbus as advisable for the given case. The tendon is then drawn up in this pocket and sutured. The conjunctiva is then closed by separate suture.

In order to avoid failure we must place our squint in its proper class or in its proper stage of

development. Neglect of this essential I believe to be the chief cause of failure except in the beginner. In the few cases cited and in many more this has been beyond all question the cause of failure. This can be remedied by a more thorough study of our cases along the lines pointed out by Duane in many of his writings. First measure the deviation for distance and near. This is best done by the screen test for then not only the amount of deviation is determined but primary and secondary deviations, spasmodic inversions, and vertical deviations are also noted. Next the excursion test should be made and this supplemented by the screen test in the six cardinal positions always noting the character of the fixation, primary and secondary deviations and the like. The convergence near point is next observed noting not only the near point but also which eye diverges when convergences are given up. Also whether the near point is absolute or relative. These tests are usually sufficient to enable one to attach a proper importance to the various elements present and from these choose the operation best fitted to the particular case in question. Generally speaking a weakened abductor and a divergence insufficiency must be corrected by advancement or resection of the externus while an overacting muscle or a convergence excess is best overcome by a tenotomy or recession of the internus.

Through the courtesy of Dr. P. C. Jamison, I have examined several cases operated on by him where his method of recession was used. I have been impressed by the considerable amount of squint corrected by a single or double recession, also by the converging power remaining after even a double recession to the equator. His considerable series seem to demonstrate that, what we have often considered as an underacting externus has been so only by being overpowered by a strong internus and when the internus is released the externus will resume function. Also that it is safer to add, to our tenotomy of the internus, some form of scleral anchorage.

The failures due to our efforts to correct all classes of squints by the same operative procedure will always remain failures, along with the failure of calomel in all intestinal disorders.

The failure due to faulty technique among the initiate are comparatively fewer when the failures due to errors in judgment are deducted from the whole. The more common are due to hæmorrhage or trauma producing adhesions thus limiting the action of the muscle. The remedies for these errors are too apparent to enumerate in this section.

We have a large variety of operations from which to choose and the operator should choose from among these the one which he thinks best, and then perfect the technique. But having done this his results will be dependent on his judgment

of the variety of squint with which he is dealing. A thorough study of the case will prove them all to differ somewhat and the pleasure derived from our work is not the operation per se but the working out of the special problem of each case and then proving the correctness of our solution by operation.

EVULSION OF THE OPTIC NERVE WITH REPORT OF A CASE.*

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EVULSION and avulsion are terms applied to a seemingly rare condition of the optic nerve in which there has been a laceration of the nerve elements as they emerge through the scleral ring, and a retraction of the nerve within its sheath; but neither term is complete in that no idea is conveyed as to the character of the retinal trauma. Necessarily if the nerve is evulsed there must be a severance of continuity between nerve and retina or else the retina is drawn backward into the nerve sheath. The laceration takes place just as the fibres emerge from the distal margin of the scleral ring and may be partial or complete. The lamina cribrosa is, as a rule, ruptured. The condition is probably not so rare as one would be led to believe by a review of the literature. It is probable that a great many cases are never recognized, owing to the gross pathological changes which obscure the ophthalmoscopic field. From the character of the lesions and the anatomy of the parts affected, the writer is of the opinion that sudden increase in intra-ocular pressure by compression of the globe is responsible for the condition in a larger percentage of cases than we realize. (Hess, however, failed to produce such a result experimentally.) The case herein reported was undoubtedly of such a nature.

CASE REPORT.

H. H., age eighteen, on March 4th, 1921, while playing basketball, was struck in the left eye and rendered suddenly unconscious. On recovery the eye was totally blind. Twenty-four hours after the injury I saw him for the first time. There was slight laceration of the margin of the lower lid and ocular conjunctiva, and considerable conjunctival œdema. The cornea was slightly abraded and the pupil dilated. The pupil reacted concentrically but direct reaction was abolished. The fundus could not be seen. Patient was put to bed and atropin ordered instilled three times a day. For the first forty-eight hours ice compresses were applied to combat the swelling, after which time hot compresses were used to facilitate absorption. At the end of one week the

vitreous haze began to disappear and a faint outline of the fundus became visible. At the site of the nerve head appeared a perfectly round grayish white hole indistinctly seen at first, but from day to day becoming more clearly defined. Hemorrhages extending from the lacerated ends of the empty retinal vessels out into the vitreous presented a most beautiful and striking picture. They appeared as though forced under pressure into the vitreous fluid and there became suddenly converted into cloudlike forms which remained fixed. Their shapes resembled the effect produced by a skyrocket at the moment of explosion. This blood underwent very slow absorption but owing to its location in the upper half of the vitreous chamber, it did not obscure the details of the traumatized area surrounding the excavated nerve head. It was seen that the retina and its vessels had been severed from the nerve head in almost its entire circumference at a distance of from about one to five millimeters from the edge of the scleral ring. The arteries and veins were completely empty, appearing as fine white lines, most of which have since become filled by collateral anastomosis. After a period of several months the excavation was filled with connective tissue. The outlines of scar tissue now surrounding the disc show signs of contraction, but no detachment of the retina has taken place. The retina is now extremely atrophic. Although more than two years have elapsed since the injury, the media are perfectly transparent, except for a few fine connective tissue strands in the vitreous, and the tension of the eye is normal. It has been free from pain and inflammation at all times since the subsidence of the traumatic œdema.

Two ways are recognized by which evulsion of the nerve is brought about, other than by direct compression. In one instance a foreign body penetrates the orbit along the side of the eyeball impinging upon the nerve and forcing it backward, which may or may not at the same time lacerate the sheath. In the other, the eyeball is forced forward as in fracture of the orbital walls; or where it is gouged out of the socket. In both instances the principle involved is the same and might therefore be spoken of as due to traction. Thus we can simplify our classification and state that evulsion of the optic nerve is caused either by sudden compression of the eyeball, increasing intra-ocular pressure to such an extent as to lacerate the lamina cribrosa or by forcible traction upon the nerve. A study of the case reports found in the literature, leads the writer to conclude that by far the greater number is produced by sudden compression. The thrust of a bayonet or a cow's horn into the orbit would be more apt to compress the eyeball against the wall of the orbit than to strike the freely movable optic nerve and even though the nerve were injured by

* Read at the Annual Meeting of the Medical Society of the State of New York, at New York City, May 22, 1923.

the thrust, it still would not prove that the ball was not also compressed. With an unruptured dural sheath, it is difficult to explain how the optic nerve fibres could be torn by traction alone. The one and only explanation is that there is more elasticity in the dural sheath than in the nerve fibres. A brief review of some of the cases in the literature will be here given:

P. Stoewer in 1910 reported two cases of evulsion of the optic nerve:

In the first case the point of an umbrella was thrust into the inner canthus of the left eye which was dislocated in front of the lids and quite blind. An ophthalmoscopic examination of the disc was hidden from view by a grayish mass in the vitreous, above which a white discoloration of the retina was noticed, while the rest of the fundus had a nearly normal color and was dotted with hemorrhages. The arteries were invisible, the veins dilated and blurred in outline.

The eye was removed two days after the accident on account of threatened cerebral complications. Sections showed complete absence of the optic nerve within the nerve sheath, the latter containing vitreous, blood and fibrin. Within the scleral canal there were remnants of the lamina cribrosa and nerve fibres, the optic nerve being absent only from the center, the retina was detached by hemorrhage immediately above the disc but only to a limited extent. Apart from smaller retinal hemorrhages there was a massive extravasation in front of the disc projecting into the vitreous. The arteries were collapsed, the veins turgid. Although the author does not say so, the dural sheath was apparently not ruptured.

The second case was that of a boy whose left eye had been struck with a stick a fortnight before he was seen by the author. The eye was sightless. The vitreous was opaque at first but gradually cleared and two months afterwards the fundus was visible. The entrance of the nerve head appeared as a white disc with a projection into the retina upwards and inwards. It was devoid of vessels and surrounded by hemorrhages. Eleven months later well-filled vessels were seen spreading from all sides of the disc into the retina; there were also numerous white streaks underneath the vessels similarly distributed. Later on the lens became opaque.

R. Berkhauser in 1910 reported a case of partial evulsion of the optic nerve caused by the thrust of a cow's horn. There was moderate protrusion of the eye, laceration of the lid and conjunctiva. The fundus could be seen. The lower quarter of the disc was occupied by a black excavated crescent-shaped area of sharp outline; at its lower margin retinal vessels covered with hemorrhages ended abruptly. Six months later the hole was filled with white scar tissue.

A. Natanson in 1912 reported a case in which the sight of the left eye was lost from being

jabbed with a cane. It presented the usual features ophthalmoscopically of evulsion of the nerve and the author thinks the evulsion due to the forcing of the nerve backward.

Dr. E. M. Blake in 1918 reported the case of a Russian Jew, age twenty-nine, who was thrown from a wagon, striking his head on a trolley track, fracturing his sup. maxillæ and nasal bones which caused a forcible extrusion of the eyeball. One week after the accident, ophthalmoscopic examination revealed an excavation of the nerve head measuring 8D. The diameter of the hole was slightly greater than the normal disc, the retina was torn on the nasal side of the opening, most of the retinal vessels were devoid of blood. There was a large hemorrhage in the upper part of the retina and numerous small hemorrhages scattered about the fundus. In the course of a few weeks the excavation of the site of the nerve head was filled in with new-formed connective tissue. The hemorrhages absorbed and some of the retinal vessels refilled with blood, so that the eye eventually appeared to be quite normal though totally blind from atrophy of nerve and retina.

Dalen in 1910 reported a case of evulsion of the optic nerve, by which term he understands tearing of the optic nerve from its scleral canal, with preservation of the ocular tunics. A dark gray excavation was visible at the usual position of the optic disc. The eye was enucleated two and one-half years later for glaucoma; microscopically the fibres of the nerve were seen to be torn through with displacement backward in the uninjured dural sheath. The cause of the injury was a blow from a stick which probably caused extreme compression of the globe; the lamina cribrosa being the spot of least resistance gave way with the above result.

Lister and Hine in an exhaustive paper on this subject, subsequent to their wide experience in the late war, state they have been able to find records of only twenty-six cases of the condition known as evulsion of the optic nerve, and out of these, in only eight has there been a pathological report of any kind. The following is an abstract of their paper:

The ophthalmoscopic picture is recognized (1) Either by the appearance of a hole at the optic disc, which may occupy the whole or part of the scleral ring, indicating that the optic nerve-fibres have wholly or in part been pushed or torn out of the eye, or (2) The disc may appear as a more or less filled-in white area; but in both cases the retinal vessels have either completely or partially disappeared.

With the pushing or tearing out of the nerve-tissue, the blood vessels are torn across, with the result that, as a rule, such gross hemorrhage occurs at the back of the eye as to obscure all ophthalmoscopic examination, at any rate in the earlier stages (thus preventing the diagnosis of

the condition). When the blood in the vitreous becomes absorbed so as to allow an ophthalmoscopic examination, the typical appearance may be recognizable; but it may be the blood is replaced by fibrous tissue which fills up the hole in the disc to a greater or less extent, or indeed may cover a good part of the fundus in the region of the disc, in which case it may be difficult to make out what has happened.

When little or no hemorrhage takes place into the vitreous, the fundus presents one of the most striking appearances revealed by the ophthalmoscope; we see a fundus oculi without vessels, an optic disc replaced by an apparently bottomless pit set in a background in which there are pronounced concussion-changes.

It is only these cases of evulsion that can be recognized ophthalmoscopically in the first weeks, and they are rare, for in over four years (during the war) the writers have seen only one definite and one doubtful case.

Though their experience in France of evulsion of the nerve as an ophthalmoscopic picture has been limited, the examination of blind, painful eyes which have been removed has yielded the writer's information as to the anatomy of this condition.

In four cases the nature of the lesion had not been suspected before the removal of the eye, and the later examination showed that the diagnosis could not have been made owing to the opacity of the media.

CASE 1. The missile had cut through the whole nerve close to the globe, so that at excision, as soon as conjunctiva and muscles were divided, the eye came away. There was partial evulsion of the nerve-tissue, the central fibres being missing, the peripheral parts of the nerve remaining in the sheath. There was gross concussion of the retina and choroid with infection of the eye, which had probably spread forward from the track of the missile through the opening of the nerve.

CASE 2. No notes as to the injury. Eye removed because blind and painful. The anterior chamber deep; no sign of an external wound. The nerve-sheath was intact in front of the scissors-cut for about seven mm. from the back of the globe, but was entirely devoid of any nerve-tissue, and contained a tongue-like process of the vitreous projecting backwards in the empty sleeve of the nerve.

The nerve-fibres with the lamina cribrosa have disappeared. The retina shows gross concussion changes and has been torn in a ring about $1\frac{1}{2}$ mm. from the margin of the disc, while in front it has also been torn away from the ora serrata almost all the way round. The writer emphasized the fact that the nerve-sheath was not pulled directly away from the globe.

CASE 3. The writers had no knowledge that the nerve had been evulsed until microscopic examination revealed the empty sleeve of the nerve-sheath completely void of any nerve-tissue or trace of lamina cribrosa. The section shows the sheath had been divided on one side in front of the scissors-cut, but this has probably also been made by the scissors, as it is a clean cut and shows no cell infiltration around its edges, and therefore was almost certainly not due to the passage of a foreign body.

CASE 4. The man had a blind, painful, proptosed eye, which was obviously severely concussed. Iris discolored, but no sign of a penetrating wound of the globe.

Nerve-sheath and posterior half of the eye were full of blood. The nerve-sheath had been divided by the scissors about 4 mm. from the back of the globe, and contained neither nerve-fibres nor lamina cribrosa. Some coiled remains of retina, which had been dragged back when the nerve was retracted, were partially occupying the sheath. The nerve-sheath was not pulled away from the back of the eye.

From cases 2, 3 and 4 we learn that evulsion of the nerve-fibres can take place without the sheath being torn from the back of the eye. On the other hand, they gave no clue as to how far the nerve-tissue had been retracted in the sheath.

This point could be investigated in:

CASE 5. The patient was admitted to the hospital with severe multiple shell-wounds of head, face, left knee, and left hand. Ophthalmoscopic examination of the eye showed a sharply punched-out hole in the position of the optic disc, considerable retinal hemorrhage round the disc, a choroidal rupture on the temporal side, and some slight vitreous opacities from hemorrhage. No sign of blood-vessels was to be seen in the fundus, except a few streaks above, which might be attenuated blood-columns or threads of blood in the vitreous.

The patient died on the twenty-fourth day after injury from severe septic meningitis and a large left frontal abscess following a penetrating wound of the left frontal bone.

The foreign body, a flake of metal 14 mm. long, 10 mm. at its widest, and 4.5 mm. at its thickest was found in the left orbital wall. It had passed nearly horizontally from its entrance in the right upper lid, through the anterior and inner part of the right orbit, across the nasal cavity, through the inner wall of the left orbit at the junction of the anterior and middle thirds, and had tracked immediately below the optic nerve to the spot where it was found embedded in the outer wall, in its posterior third.

The contents of the left orbit were removed and carefully dissected.

On uncovering the optic nerve a hard mass of inflammatory scar-tissue was found adhering to

the lower surface of the nerve and back of the globe, but the upper surface of the nerve-sheath was absolutely intact and unaffected.

Macroscopic examination showed retinal and choroidal hemorrhages scattered all over the back of the eye and extending as far forward as the ora serrata, with extensive whitish areas around the disc. The disc itself appeared as a sharply cut pit, but the torn edges of the retina could not be definitely made out. The vitreous showed some streaky opacity. The front of the eye looked normal.

Microscopic sections were made longitudinally through the nerve, its base of scar-tissue and the disc. These showed that the nerve-sheath was perfectly intact above, as noted before, but below there was a gap, where it had evidently been divided about 4 mm. from the back of the eye. The nerve-fibres and lamina cribrosa had been forced back from the disc, and the nerve end was lying tucked round into the gap of the nerve-sheath.

The nerve-sheath in front was an empty sleeve except for some vitreous matter undergoing organization.

In the orbital fat close to the gap in the nerve-sheath was a fragment of bone, and a little further away from the sheath was a small implantation cyst lined with nasal membrane.

The pial sheath of the nerve behind showed well marked septic meningitis.

This case is the only one the writers know of which shows the end of the nerve lying retracted in the sheath.

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RENAL INFECTIONS COMPLICATING PREGNANCY.*

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IF every obstetrician would look upon the pregnant woman possessing two kidneys in the light of an individual having but one kidney and observe the same care in the study of the patient and especially of the kidney function as he would exercise in the case of pregnancy after nephrectomy, renal infections during pregnancy would be of less frequent occurrence, milder in their course, and the patient would receive better attention subsequent to the pregnancy.

The timely paper by Matthews¹ "Pregnancy after Nephrectomy," shows what proper supervision will do in conserving the single kidney during pregnancy, and the same should be applied to women harboring two kidneys.

In a recent presentation Hinman² has convincingly shown the remarkable power of compensation of one kidney during the disability or after removal of its fellow. We have repeatedly noted with little short of amazement, the subsequent recovering of a kidney to a useful organ when it had apparently been destroyed by infection not only beyond repair but to the extent of being a menace to the system, after the factors entering into the causation of the infection were removed.

That nephrectomy is performed more frequently today than formerly is due to the fact that renal lesions are diagnosed correctly and earlier, due to accurate methods of diagnosis and not to promiscuous operating.

Nephrectomy for tuberculosis, new growth, some cases of pyonephrosis and occasionally for nephrolithiasis, hydronephrosis, or a rare lesion, is carried out at a stage when a local cure and the preservation of the general health is possible, but the removal of a kidney for infections, even of the fulminating type of pyelonephritis, is extremely rare, owing to a better understanding of the causation and treatment of kidney infections.

Incident to infectious diseases as typhoid fever, for example, and in the presence of infectious foci in the body, living bacteria may pass through the kidneys in appreciable numbers without giving rise to kidney infection. In this connection the virulence of the organism must be considered as well as the numbers, and on the other hand, the ability of the kidney to eliminate the bacteria from its pelvis and calyces by satisfactory drainage are the important factors.

There is an abundance of evidence collected from scientific experimentation and clinical

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study to show that renal infections are primarily hematogenous in origin—namely, that the organisms are supplied from the blood stream. That ascending infections are possible and probably do rarely occur; also the possibility of infection by lymphatic extension are beyond the limits of this paper.

That women are more prone to kidney infections than men must be accepted from reliable clinical reports, the percentage varying at from sixty to seventy per cent. of all kidney infections. Such predisposing causes as pregnancy, menstruation, constipation, movable kidney, prolapse of the pelvic floor and splanchnoptosis being the more prominent contributing factors to this disproportion in the sexes.

As Matthews has stated, most obstetricians are agreed (1) that pregnancy is a pathologic process; and (2) that there is an increased load thrown upon the kidneys during pregnancy and labor. Thus, in the light of our present knowledge of the cause of kidney infections, the preponderance of infections in women, and the increased kidney strain incident to pregnancy, should not every effort be made to prevent such an infection?

Every case of pregnancy should be looked upon as in one sense a urological case. As such, a careful history is in order. Information relative to the possibility of focal infections, of poor gastro-intestinal function and urinary symptoms, should be especially solicited. A physical examination should be just as complete. The condition of teeth, tonsils and sinuses are of the utmost importance. Recent investigations carried out at the Mayo Clinic and reported by Bumpus, clearly show the close association between infection of the teeth, devitalized as well as abscessed, with infections of the urinary tract. It is impossible to go into the researches reported in his paper, but they are convincing. While bacteria from such a source may be eliminated by the kidneys under conditions of good body resistance, the lowered vitality and added kidney strain of pregnancy may be the deciding factor in starting an infection.

If discovered early in pregnancy the clearing up of focal infections may be possible, or the discovery of such processes will place one more on his guard to prevent or combat kidney infections in the first stages.

The discovery of enlarged lymph nodes or pulmonary foci is important. I have in several instances seen a pulmonary lesion become active during pregnancy and a renal tuberculosis result. By abdominal palpation much information may be gained. The presence of a tumor, enlargement or abnormal mobility of the kidneys and the tone of the abdominal muscles is important.

The patient with a flaccid abdominal wall and splanchnoptosis is more prone to poor gastro-intestinal function, especially constipation; greater numbers of colon bacilli will be thrown into the blood stream to filter through the congested, poorly drained, prolapsed kidneys, and greater care must be exercised to prevent infection.

How much may be accomplished in such cases by abdominal support, moderate exercise, a carefully regulated diet, flushing the system with water, increased activity of the bowels and occasional colonic irrigations.

A sterile, catheterized specimen of urine should be taken as soon as the diagnosis of pregnancy is made. If bacteria or pus are found in such a specimen not only should a Roentgenogram of the urinary tract be made but a cystoscopic examination and a more careful search made for possible foci of infection, also elimination from the gastro-intestinal tract should be promoted. A sterile specimen should be examined regularly throughout the pregnancy.

The time for making a diagnosis of the urological condition in a case of pregnancy is when the history or physical examination of the patient reveals evidence of previous or present trouble and not as is usual, when an acute infection is present, the patient then being as a rule acutely ill, when one's efforts must be directed toward relieving the severe symptoms usually present and carrying the patient through the pregnancy with as little interference as possible.

Renal infections during pregnancy most often occur between the third and seventh month. The acute attack is often preceded by a period of vesical irritability during which time the kidney is draining at least intermittently. This is the time when the proper treatment would in many cases prevent further trouble. The frequent burning urination is often passed off as due to pressure upon the bladder, when in reality it is due to a bacteriuria. The bacteria cause congestion of the urethra and trigone, also of the mucous membrane of the ureter through which they pass. Congestion at a point of angulation, such as angulation due to prolapse of the kidneys, pressure from the uterus, possible stricture or torsion of the ureter from traction due to elevation of the pelvic contents, leads to complete obstruction of the ureter with cessation of bladder irritability and appearance of the local and constitutional symptoms of an acute pyelonephritis.

In some cases the ureteral obstruction takes place at once, in which case bladder symptoms are not present until drainage from the kidney has been reestablished. In such cases the first

symptom is pain in the flank, associated with a rapid rise of temperature often to 105°, accompanied by extreme prostration and vomiting.

While in some cases of acute pyelonephritis it may be inadvisable to catheterize the ureters at once, but to delay instrumentation until the acute symptoms have subsided from internal medication before employing pelvic lavage, in pregnancy, I have seen no deleterious effects from intervention, and often the result is immediate and most striking. The pain in the flank is usually relieved at once when the catheter enters the dilated ureter or kidney pelvis and a temperature of 105° may drop to normal in a few hours. Such a condition is often not maintained, however, for fluctuations of temperature are apt to persist for from three days to two weeks or more, due to intermittent drainage, and subsequent relapses are not uncommon.

The retention of a ureteral catheter in position is often a valuable aid in maintaining drainage.

In passing the catheter to the kidneys in cases of acute pyelonephritis of pregnancy, more or less obstruction is usually encountered in the first 10 cm. of the ureter. After passing the pelvic brim there is often a rapid flow of urine from the catheter. In cases of fatal eclampsia the ureters have been found to be in a state of acute dilatation from the bladder wall upward. Kidd believes this to be a physiological dilatation of the musculature of the ureters set up by the chemical bodies or poisons circulating in the blood of pregnant women. Others maintain that pressure upon the ureter or torsion of the ureter causes the obstruction. The maintenance of kidney drainage, flushing the system with large quantities of water, promoting free elimination from the bowels and the administration of alkalis or urinary antiseptics are the immediate indications. When the acute symptoms have subsided occasional pelvic lavage during the pregnancy may be of great value in carrying the patient to term.

If a renal lesion has been brought to light by the super-imposed infection, such as tumor, calculus, hydronephrosis, cystic degeneration, anomaly or malposition, seldom is it necessary to deal with such a condition until after the delivery. A renal lesion should receive treatment during and after the puerperium until cured.

Summary—In the light of our present knowledge of renal infections, the frequency of such infections in women and especially during pregnancy, a careful study of the patient should be made to detect if possible any abnormality of the urinary tract which might predispose to infection, or the presence of a latent infection at the outset of pregnancy; also a thorough

physical examination should be carried out with particular attention to the discovery of focal infections. Constipation should be properly corrected and sterile specimens of urine examined regularly during pregnancy; that first, kidney infections may be averted; secondly, that they may be detected early and corrected by removing the source of infection. If acute pyelonephritis does supervene, relief should be given by establishing drainage, flushing the body, increasing body elimination and treating the patient symptomatically until relief of the pregnancy, following which the patient should be treated until cured of the kidney lesion.

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- CLARK, GEORGE W., Waterloo; Detroit, 1893. Fellow American Medical Association; Member State Society. Died August 17, 1923.
- CLEAVELAND, TRUMBULL WILLIAMS, New York City; New York University, 1884. Member State Society; Alumni Bellevue Hospital. Died August 24, 1923.
- COLEGROVE, LA VERNE C., Elmira; University Buffalo, 1894. Member State Society. Died July 4, 1923.
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- CORNING, J. LEONARD, New York City; Wurzburg, 1878. Fellow American Medical Association; Member State Society; New York Academy of Medicine; New York Neurological Society; Consulting Neurologist St. Francis', Hackensack and St. Mary's Hospitals. Died August 24, 1923.
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HERMANN M. BIGGS A GREAT PHYSICIAN

For a little while, a frail tenement housed a great brain, a great heart, a great ambition, a boundless vision.

Intense concentration erected solid educational foundations with almost incredible rapidity, and followed lines of scientific investigation to practical limits.

Never content merely with careful searching for correct diagnoses, he eagerly sought dependable therapeutics and while devotedly serving the individual always envisioned the broadest application to public welfare of every useful remedy.

Impatient of superficiality, generously appreciative of sincerity, he weighed every medical effort upon the scales of public service.

Unselfish devotion to the City and the State involved serious material sacrifice, his valuable services as consultant being frequently unavailable because of absences necessitated by official obligations.

His militant leadership carried on to heights unattainable except by those with the statesman's vision.

With strong emphasis upon the importance of the bedside clinician, he desired for all of the people every advantage of rapid, accurate, and skilled scientific service.

"His work is done.

But while the races of mankind endure,
Let his great example stand
Colossal, seen of every land,
And keep the soldier firm, the statesman pure."

N. B. V. E.

THE CHIROPRACTIC MIME CHEAPER THAN EVER.

From a southern city emanates a new chiropractic circular designed to convince the wavering or sceptical, containing the usual falsehood. The circular is signed by "Dr. ——— D. C., Ph. C.," whatever these initials may denote, who states, "Chiropractic is the science, art and philosophy of natural life—a method of adjusting the movable segments of the backbone, thereby removing pressure from the spinal nerves and permitting life's forces to travel freely between the brain and all parts of the body. Hence it follows (!) that when the cause of the so-called dis-ease (meaning not at ease) is removed, nature does the rest and permanent HEALTH is the only possible result." The "only possible result," is it? To quote another author, "I have not seen such faith, no, not in Israel." There are two opinions about that "possible result." How subtle to divide the word disease! Yet that is not a new suggestion, nor does it convey the present meaning of the word. Webster's Dictionary gives us:—"DISEASE. 1. Lack of ease; discomfort. *Obsolete.* 2. Any departure from health, presenting marked symp-

toms; malady; illness; disorder." However, let us by all means let "life's forces" travel; for one reads in the circular, "The cause of any and all diseases can be readily traced back to an absence of life forces—that is, nerve pressure caused by subluxated (misplaced) vertebræ is the cause of all disease." This, of course, is a falsehood.

Now how arriveth the Chiropractor at his conclusions, forsooth? The circular tells us, "By scientifically palpitating the back with the fingers trained by years of practice." Here we have it: "By scientifically palpitating." Wonders will never cease.

After the diagnosis following the "palpitating," an agreement may be reached between the composers of the circular and the convinced invalid, under the terms of which the chiropractors "agree to render Chiropractic Services at any time, day or night, for one year, upon the payment of \$36.00 per year, at the rate of \$3.00 per month, payable on the first of every month. This payment includes Chiropractic Services for the entire family for the above period." Astoundingly cheap, but you pay all it is worth. Yet make haste, for we read on the bottom line of the agreement, "Only one hundred contracts will be sold." Cut-rate for introduction; that's all. Bite quickly, therefore, ye minnows! A. W. F.

THE SILENCE OF THE PROHIBITION COMMISSIONER.

Upon the appointment of the Federal Prohibition Commissioner, after the enactment of the Volstead Act over the veto of President Woodrow Wilson, it became the duty of that official to transmit to those affected copies of the Act, together with copies of the rules and regulations imposed by his department in the enforcement of the Act, and also to transmit interpretation of the Act for the intelligent and complete obedience of our citizens.

All this was done. But we wait in vain for any notification regarding the relaxation of the obnoxious and unconstitutional limitation of the amount of intoxicating alcoholic remedy which shall be prescribed by a physician, duly licensed to practise by his State (the Federal Government having no power to license a physician or to interfere with or cancel his license).

The injunction granted May 9, 1923, by Hon. John C. Knox, a justice of the United States District Court against Acting Federal Prohibition Director Edward C. Yellowley, runs also against Prohibition Commissioner Roy A. Haynes, enjoining him from interfering with medical practitioners in the prescription of alcoholic remedies in kind or amount.

True, the injunction was granted *pendente lite*, but meanwhile it is only fair that a corrected position should be taken by the Department.

A. W. F.

forum for Correspondents

The Council at a meeting held in Albany, April 20, 1922, moved, seconded and carried

That the Journal be not used in any way suppress any expression of opinion; and that its correspondence columns be open for all proper communications; and that "proper" communications will be deemed those which are not slanderous or libelous in their nature.

Editor of the NEW YORK STATE JOURNAL OF MEDICINE:

The Association for the Protection of Constitutional Rights, in its recent circular letter to physicians, commends the decision of Hon. John C. Knox, District Judge, in holding as unconstitutional, that portion of the Volstead Act limiting physicians in prescribing alcoholic liquor for the sick.

While not disputing its value for such purposes—its unrestrained use, no matter how plausible, is an entirely different proposition. On a close analysis, we are unable to endorse such *ad libitum* prescription. The baneful influences from excessive use of intoxicants—best known to physicians—proves the need of limitation.

If the medicinal properties of alcohol, as a drug, were not attended with habit-forming effects, there were no need for legal limitation. The cure of the ailment would limit the desire, as with non-habit-forming drugs. However that is not the case. Our duty in the premises, together with our just "Constitutional" right of prescribing liquors, is limited to the plain needs of each patient. It may be assumed that physicians should be trusted to observe those ethical features—most of them may, some of them may not. The latter create the need for the law—the former are not injured by it, save in their pride. This is our sacrifice for the people at large. Our bibulous patients, craving the drink, will not hesitate to camouflage. To retain their patients and avoid offense, many doctors will yield.

The great merit of the law is its protection of physicians against these unwarranted demands. It likewise disciplines the addicts to moderation—not more than a pint in 10 days. Actual need never exceeds that amount.

Neither physicians, nor any other citizens, under the constitution, can become a law unto themselves. Their judgment, through better knowledge of the facts, is no warrant for special indulgence. Right must be protected by law, just as wrong should be punished by it. The legal limit must define the safe limit, in average cases. The average case is one not having a habit, but merely requiring the spirits for cure of their sickness. Morbid craving, while not prohibitive, is a contra indication. The specious plea of "constitutional liberty" gives no warrant to attending physicians for an unlimited right to prescribe ardent liquors for the sick.

The Constitution never can give, nor ever did mean to create, class privileges by catering to those of special education, or special interests, or special desires. It must be accepted in a generic sense. Our duty then is plain obedience to the law of averages.

On the other hand, while admiring the *animo et fide* of Dr. Lambert and his co-workers in "protection of constitutional rights," we must plead a demurrer for this specific instance of assumed violation.

JOHN D. BONNAR, M.D.

August 16, 1923. 144 Jewett Pkwy., Buffalo, N. Y.

Editor of the NEW YORK STATE JOURNAL OF MEDICINE:

DEAR DOCTOR: I have read with regret about the experiences of some of the physicians in their 25% assessment for non-payment of Narcotic License fee before July 1st and wish to state my experience two years ago at which time I tried to pay my fee before July 1st. The clerk at the Bureau stated that he was not allowed, in fact was not in position to take narcotic license fees before July 1st. I expected to be absent at that time and finally prevailed on the clerk to take the fee. You will readily see by this that the Narcotic Tax

August 20, 1923.

Bureau has not always been consistent and do not seem to know just what they want, except to annoy reputable physicians.

Another article on page 349 of the August Journal, "Saving the Honor of the Physician's Title," I read with a great degree of interest and wish to add my commendation to the views of the physician in that, if we, as physicians, would sign our names with the M.D. affixed, instead of the Dr. prefixed, we would be going a long way to correct the evil. I might add that the Medical Journals could assist greatly by addressing their mail and journals with the M.D. affixed instead of the Dr. prefixed.

Yours fraternally,

WALTER E. KIEFER, M.D.

East Aurora, N. Y., August 22, 1923.

Editor of the NEW YORK STATE JOURNAL OF MEDICINE:

DEAR DOCTOR: I wish to comment on your article, "The Role of the General Practitioner," signed by the editor. Surely it does deserve more than passing notice, and it would indeed be a sign of the general apathy of the profession, were it only to receive passing notice. Unfortunately, not having a "strongly united profession," quoting from the editor's article, matters of this nature do receive only passing notice, especially from "the distinguished leader of a specialty who has climbed so far beyond the ordinary practitioner that he has lost his sympathies for general questions, and is concerned only in his own personal attributes," quoting again from the editor's article, with the suggested correction, that he is concerned only in advertising his own personal attributes.

The two great economic questions of our profession requiring solution, are the fee-splitting evil and the hospital clinic. The editor has suggested a happy solution, and the writer would indeed be interested in knowing whether the editor's co-officers of the State Society are in accord with his suggestion. While it is true that many of the high-minded members of our profession, and likewise others of more materialistic attributes do not enjoy the "subterranean method" of fee-splitting, still that is in their minds their only recourse in order to meet the needs of competition, or to maintain apparent standards not suggestive of the fee-splitter, such standards being necessary in order to hold positions upon hospital staffs, society offices, etc. The solution of the fee-splitting problem would do away with all this hypocrisy.

And the hospital clinic "the clinic advertises, while the doctor may not." How true this is, especially in these days of the realization of the value of publicity. How the hospitals are contending with each other daily in the constant newspaper reports, of this or that rare case, or some unusual operation. Not a day passes that the daily newspaper does not contain a column or two on some hospital occurrence, which a clever reporter has moulded into a miraculous story. Not that the writer does not believe in publicity, but advertising is not publicity, nor vice versa, and if the clinic advertises, why may not the humble physician do likewise.

The solitary physician, in the humble performance of his constant labors, knowing neither obstacle nor time of day, what gratitude, what return has he received from those whom he serves? Let him advertise. Let him show the world what his sacrifices are, and perhaps he will be better appreciated.

Your editorial on the general practitioner should receive the consideration of every member of the profession. The writer has appreciated its message, and only hopes that the matter discussed therein may receive further attention.

Yours truly,

PHILIP KASSEN, M. D.

4515 14th Ave., Brooklyn, N. Y.

Editor of THE NEW YORK STATE JOURNAL OF MEDICINE:

MY DEAR DOCTOR: I want to thank you for your masterly editorial in the August number of NEW YORK STATE JOURNAL. I agree with everything in it and I am sure it reflects the thoughts of the majority of general practitioners in this State at least.

Twenty-two years ago Dr. John Downing of St. Francis Hospital voiced the same opinion to me in regard to ten years' apprenticeship as a general practitioner before taking up a specialty. I have since learned the wisdom of it. We have too many mushroom specialists, especially surgeons. We have too many so-called specialists of excellent technique but too few with judgment, surgical and otherwise.

Your paragraphs on "Psychology" and "Business of Medicine" especially appeal to me, as all the psychology I know has been picked up from time to time during my twenty-two years as a general practitioner. I am also one who has suffered from lack of business knowledge.

I feel that your editorial to a great extent could be applied to our overtrained nurses, who specialize or look for soft jobs the minute they are turned out of training school. There are too few conscientious, self-sacrificing "general practitioner" nurses. They "won't" take obstetrics except in hospital, "won't" take contagious disease or typhoid, won't work more than eight hours, no matter how easy the duties may be in a particular case. They have been "kidded" by the newspapers and many doctors until they as a class are suffering from exaggerated ego.

Your editorial struck a "responsive chord" in me and I have hastened to "respond."

Sincerely,

ROB ROY McCULLY, M.D.

Union Spring, N. Y.

EXAMINATION FOR ENTRANCE IN REGULAR CORPS, UNITED STATES PUBLIC HEALTH SERVICE

Examinations of candidates for entrance into the Regular Corps of the United States Public Health Service will be held at the following named places on the dates specified:

At Washington, D. C. October 8, 1923

At Chicago, Ill. October 8, 1923

At San Francisco, Calif. October 8, 1923

Candidates must be not less than twenty-three nor more than thirty-two years of age, and they must have been graduated in medicine at some reputable medical college, and have had one year's hospital experience or two years' professional practice. They must pass satisfactorily, oral, written and clinical tests before a board of medical officers and undergo a physical examination.

Successful candidates will be recommended for appointment by the President with the advice and consent of the Senate.

Requests for information or permission to take this examination should be addressed to the Surgeon General, United States Public Health Service, Washington, D. C.

H. S. CUMMING,

Surgeon General.

DEPARTMENT OF NURSING.

Native Nursing and Medical Care in India.

By MRS. SHIRLEY B. WATT,

For years a Presbyterian Missionary near Cawnpore.

From the horror of superstition in all its forms—the fear of evil eye, the fear of evil spirits, the dread goddesses of disease—from the drastic methods of the Hakim (the native medicine man) or the atrocious malpractice of the native midwife, from uncleanness, poor sanitation and ignorance, India reaches out beseechingly to the science, the skill and the altruism of the West for the alleviation of misery so vast that only a comparatively small amount of it can be touched by the medical missions and government hospitals, and for relief of the helplessness of millions, who, left to harmful or useless ministrations of unskilled hands actuated by fear and ignorance, suffer on or die miserably.

Devotion to, or the appeasing of, the goddesses of destruction and disease may in many instances be less disastrous and not any more ineffective than trusting to the appalling concoctions and torturing methods of the Hakim.

When an epidemic breaks out in India it is believed that the goddess of destruction, Kali, is hungry; and rather than turning to curative and preventive methods of disease, all efforts of the people are turned toward satisfying the hunger of the angry goddess. For this purpose many altars are raised to her where sacrifices of coconuts, fruits or clarified butter and incense are offered. Only the more enlightened wish to be inoculated or consent to pay any special attention to cleanliness.

The dread goddess of cholera during a cholera epidemic is besought to be merciful by a rope of mango leaves stretched across the road. It is supposed that any attempt to take helpful medicine would only excite her to greater anger; and so thousands of prayers are uttered to her by those whose energy might better be turned to cleanliness, sanitation, segregation and other precautions against the relentless disease which wipes out so many lives within a few hours.

Many are the shrines of "Mother Small Pox," who is supposed to have it in her power to guard the village from small pox and other pestilences. The thankful mother whose children happen to escape the loathsome disease makes special visits to the shrine of "Mother Small Pox," and pays her the tribute which should be paid to vaccination and other intelligent methods of prevention.

"And if it be the will of the goddess to send the disease, why should we treat it?" says the Hindu; and consequently one may find here and there in the mud huts adults and children thus afflicted and uncared for, a stricken child resting her head in the lap of her uninfected sister, or a diseased woman nursing her healthy baby with no realization of the danger of infection. An Indian woman who serves as Ayah (nurse) may go daily from such a house to an European home, to care for her infant protégé.

Indeed, the Indian seems to have no normal fear of contagion or infection. Lepers roam about the streets at their will and the leper is considered eligible for matrimony by a person as yet untainted with the hopeless disease.

Turning aside from both sacrifices and cures, the low caste people sometimes make an attempt at disinfecting by placing in a cart a pan filled with charcoal into which they throw sulphur, tar and incense, the smoke from which, they think, acts as a disinfectant. A man is paid to pull the cart throughout the streets of the city.

A no less conspicuous and grotesque sight is the Hakim, the native medicine man, who parades through the crowded bazaar or village street to cast out evil spirits, or to suggest some absurd remedy with the help

of musical instruments and various charms, such as a bundle of bear's hair tied on to a string to be worn around the neck or the arm; a piece of some root; leaves; human bones; pebbles; quartz; or small pieces of skin.

Many instances can be cited to prove his hideous methods. Called to a difficult maternity case, he begins by shaving the girl's head and then, after making an incision in the scalp, he places a fowl, killed and cut open, over the wound. He tells a sufferer from rheumatic fever affecting the arm that the pain has been caused by poisonous thorns placed in his flesh by some evil persons; and to verify his diagnosis the Hakim shows his patient a handful of thorns which he declares he has extracted from her, and the credulous patient wonders why her condition doesn't improve. A broken leg with terribly torn flesh, he plasters over with cow-dung poultices until the wound becomes almost eaten away with maggots; or he soaks a burnt hand in ink; or he tries to cure ophthalmia by rubbing into the eyes pepper and charcoal, ground with alum or with bits of powdered teeth and bone.

Whether the Hakim be present or not, his practices overshadow the home where superstition, ignorance, and the imitation of his methods make possible the most unreasonable treatments, either ineffective and harmless, or exceedingly torturing as well as useless; such as the scratching of an insane patient's head with thorns followed by the rubbing in of raw lime juice, after which she has to do penance until the next fit seizes her; or the devil is beaten and starved out of the insane with actual cruelty.

No less harsh than this are some of the methods used in dealing with various kinds of misbehavior. For instance, men invariably cut off their wives' noses for infidelity; thereby, theoretically cutting off their own noses; for, I dare say, the Indian man, like the white man, takes pleasure in his wife's appearance.

A child receives a charm instead of medicine, because she is supposed to have been overshadowed by some woman. A young woman suffering from acute indigestion is told that she has the stone image of a God inside of her, and she looks in vain for a doctor to cut it out. A person with cholera is taken by some member of his household to the temple where the priest feeds him on green mangoes. A fracture of the wrist has a peacock feather tied about it for good luck, and a man with cramps ties a cord around each of his big toes. A man with rheumatism is branded with a red hot iron to cure the pain. A baby subject to dysentery or diarrhoea has its head and the upper part of its body warmly clothed, while there is nothing at all on the lower part. Black paste made of lamp black and grease encircle the baby's eyes to keep away infection, and doubtless is a cause of inflammation. A girl dying of consumption may be found in the small room where all the cooking for the household is done. The horns of an animal are placed at the feet of an unconscious woman, while a cock freshly killed is placed at her head. Black and white marks on a child's forehead are supposed to avert the evil eye; while an unsheathed knife is laid on the bed near a sleeping infant to ward off danger. The exclusion of fresh air and the burning of charcoal are necessary measures in the care of nervous disorders ascribed to evil spirits. And a pneumonia patient is often found in a small closed mud room with a thick quilt over his head.

Indeed, ignorance even thwarts the efforts of intelligent care, for we find it difficult to make the patient avail himself of the natural relief furnished by sun and air; and if a bottle of medicine containing a week's doses be put into the hands of a sick person, in spite of careful directions, he will drink the entire contents down at once, in his desire to get well quickly. Or, if a patient receives sufficient medicine from a missionary, he will proceed to someone else with the same tale of woe;

and, after receiving more medicine from that source, he will then walk to some of his benighted friends in a far village who will give him a third concoction, and it is not surprising that such a combination brings about unfortunate results.

As motherhood is supposed to be especially under the influence of the evil spirits, an expectant mother is in various ways carefully guarded from the evil eye. A special fear concerning her is that some barren woman may cut off a piece of her dress and thus cause a miscarriage; and so a number of her friends surround her as she walks in order to protect her from any such attempt. The same sort of group may gather helplessly about a woman in need of a Caesarean section, who, seated upon two piles of bricks, sways for hours or days in agony, and finally dies of exhaustion unless appropriate medical aid reaches her. The Indian woman's misery, however, does not cease with the delivery of her child; for a fire may be built over her to prevent collapse. Or, if she is delirious with fever after childbirth, she is propped up on a filthy bed while two old women, one on either side, grasp her hair in their hands as they forcibly shake her backwards and forwards, pulling out handfuls of hair in their efforts "to cast out the devil spirit" with which the helpless woman is supposed to be possessed.

The sufferings of child-birth are in no way lessened by the frightful malpractice of the midwife, the Dai, who is the dirty, ignorant wife of the low class barber. Attired in filthy clothing, her hands soiled and her finger nails black, she enters the closed, stifling birth chamber in answer to the Hai! Hai! of the wailing woman, who willingly puts herself into the hands of the Dai. With the most unsightly instruments she interferes with nature's proceedings, even when no help is needed. And when it is needed, one indeed pities the pathetic victim of such unmerciful malpractice. In an attempt to hasten the birth, the Dai will sometimes tear down the cobweb of a spider and after rolling it into a ball and putting cloves into it, she places it in the mouth of the womb. With rusty old scissors or knife, she cuts the umbilical cord at a distance of nearly twelve inches from the child. She then binds the end of it with cloth and asafoetida, and ties it to the neck of the child. When the cord dries up and drops off, the place where it has been is covered with clarified butter.

If the afterbirth doesn't come away, the Dai gives the mother something to make her cough in order to bring about the desired result; or she will hold some smoking material near the patient while one of the neighbors rubs her stomach and another beats her back. Before leaving the birth chamber the Dai may bind or stuff the mother with dirty rags; and, believing the presence of iron or steel to be potent, she may insert a needle into the mattress, so as to keep away after pains. A fire is built under the bed and kept burning for ten days and one can easily imagine the oppressive atmosphere of the birth chamber on a hot Indian day. Needless to say, the survival of both mother and child is indeed "the survival of the fittest," and many are the cases of tetanus and other fatal illnesses connected with child life.

Such is India—save where the ministering angels of worthy medical missions and government hospitals are bringing to bear on this heartrending situation their skill and untiring service. Intelligent medical care and nursing form the magical mystery by which the heart and mind of India open to a deeper appreciation and understanding of Christianity and Christian civilization, through which many wretched folks look to efficient doctors and nurses as the "Open Sesame" to comfort and peace, otherwise unattainable.

SOCIETY NOTES

AMERICAN ROENTGEN RAY SOCIETY.

Among the forthcoming important meetings of special societies is the annual convention of The American Roentgen Ray Society. This is to be held in Chicago September 18th to 21st, with headquarters at the Congress Hotel. Eminent foreign contributors will appear on the program, and the announcements indicate that treatment by high voltage X-ray will have a prominent place.

AMERICAN ELECTRO THERAPEUTIC ASSOCIATION.

The American Electro Therapeutic Association will hold its 33d Annual Meeting September 18th to 21st at the Hotel Chalfonte in Atlantic City. All licensed physicians interested in physiotherapy are welcome. Of especial interest on the program will be a symposium on Physiotherapy in General Practice. Programs can be obtained from the Corresponding Secretary, Dr. Richard Kovacs, 223 East 68th Street, New York City.

AMERICAN ASSOCIATION OF ORAL AND PLASTIC SURGEONS.

The third annual meeting of the American Association of Oral and Plastic Surgeons will be held in the Rose Room, Congress Hotel, Chicago, Ill., Monday and Tuesday, October 22d and 23d.

An interesting program has been arranged and those interested in this field of surgery are cordially invited to be present. Truman W. Brophy, Chicago, President; Henry Sage Dunning, New York City, Secretary and Treasurer.

PERSONAL NOTES

At the meeting of the Board of Trustees of the American Medical Association, held on June 28th, in San Francisco, Dr. Wendell C. Phillips was elected chairman of the board, a fitting recognition of six years of devoted service as trustee. Dr. and Mrs. Phillips have just returned from a visit to the Hawaiian Islands. Dr. Phillips announces that after 21 years' residence at 40 West 47th Street, he will remove his offices to 30 East 58th Street, September 1st.

Dr. Samuel Lloyd and Dr. C. Winfield Perkins have been elected delegates to the State Convention of the American Legion, at Saratoga Springs, September 13th-15th.

Dr. Graham Lusk, Professor of Physiology at the Cornell University, has had the degree of Doctor of Laws conferred upon him by the University of Glasgow.

NOTES ON NURSES AND HOSPITALS.

ARNOT-OGDEN MEMORIAL HOSPITAL.

Mrs. Cordelia Du Buff, night supervisor, was succeeded by Miss Helen Englehart, a graduate of Highland Hospital, Rochester, recently. Mrs. Du Buff has taken the position of visiting nurse at Erie, Penn.

Miss Ethel Hunter, a recent graduate, has become supervisor of the Men's Medical and Surgical Wards.

Miss Esther Williams, a recent graduate, has been appointed a supervisor in the hospital.

At the last commencement of the Training School, nine nurses were graduated.

Messrs. James R. Reynolds and Frederick W. Swan were recently elected to the Board of Managers.

PRUNES.

Contributions Invited.

This story is told of a former commissioner of the City of Washington, D. C. After taking office he set forth to acquaint himself with all the city activities.

In due course he reached St. Elizabeth's, the hospital for the insane. One of the doctors told him to just wander about the place and take his time to see it all thoroughly, warning him to humor any of the patients with whom he might come in contact.

Some time later he was amused to find a patient who was having trouble trying to ride a wheelbarrow.

"That is a fine horse you have there," he said.

"This is no horse," said the lunatic sourly. "This is my hobby."

"I thought it was the same thing," said the commissioner, trying to be agreeable.

"Don't you know the difference between a hobby and a horse?" demanded the patient. "Well, you can get off of a horse."

Her First.

The street-car conductor's change was running short. A young mother with her baby in her lap handed him a half-dollar.

Conductor: "Is that the smallest you've got?"

Young Mother: "Well, I've only been married a year!"—*Kasper (Stockholm)*.

The Symptoms.

Little Johnnie, aged six, had been to church and had displayed more than usual interest in the sermon, in which the origin of Eve had been dwelt on at some length.

On his return from service, there being guests at dinner, he had also displayed a good deal of interest in the eatables, especially the pie and cakes.

Some time afterward, being missed, he was found sitting quietly in a corner with his hands pressed tightly over his ribs and an expression of awful anxiety on his face.

"Why, what on earth is the matter?" asked his mother in alarm.

"Mamma, I'm afraid I'm going to have a wife," little Johnnie replied.—*Tit-Bits (London)*.

A Natural Request.

By IDA M. THOMAS.

"Are you the trained nurse mamma said was coming?" asked four-year-old Bobby of me.

"Yes, I'm the trained nurse," I answered him, smiling.

"Let's see some of your tricks," said he.

Waiting for Information.

Tourist: "To what do you attribute your great age?"

Oldest Inhabitant: "I can't say yet, sir. There be several o' them patent medicine companies bargaining wi' me."—*Passing Show (London)*.

Poor Chap!

Jubbs: "What's wrong with Smith?"

Jubbs: "Nervous breakdown, I guess."

Jubbs: "What? Has he taken his vacation already?"

—*American Legion Weekly*.

A neighbor of the Joneses, fond of the Jones children, with whom she liked to talk, as they were bright, met

Billy Jones one day, and wondered why he was alone, as usually his little brother accompanied him.

"Where is Tommy?" she asked.

"He's in bed with some green apples," was the reply.

Busy Sister.

"And how is your little baby sister, Ronald?" asked the vicar, who was making a call.

"Oh, she's only fairly well, thanks. You see, she's just hatching her teeth."—*The Brisbane Mail*.

The Green Apple Season.

Two boys coming from opposite directions met in the street. One boy had his mouth and hands full of green apples. The other boy, looking up as they passed, exclaimed:

"Are the green apples ripe already!"

—*Indianapolis News*.

Platoons Right!

An army corporal, arrested in Athens, and alleged to have married twelve women, pleaded that they were merely platonic affairs. He might almost have called them platoonic.—*Punch (London)*.

Danger!

An American doctor has discovered a drug that makes people tell the truth. We understand it is illegal to take the stuff within a three-mile limit of any politician.—*Punch (London)*.

A poorly nourished dietitian was telling a mother that she must have her children eat porridge, milk, fruit and vegetables. In response to the objection that the children disliked those foods, the visitor said he had been raised on them. "Well," said the mother, "you ain't no ad for them eats."—*Social Service*.

Mrs. Malaprop Discovers Vitamines.

Hostess: "May we serve you to another helping?"

Mrs. Malaprop: "Why, I believe you may. That food seems very nutritious. It fairly teems with pantomimes."—*Christian Register*.

The Ruling Passion.

Doctor: "Temperature 104. That's bad!"

Golfing Patient: "What's bogey, 'doc'?"

A Great Bend man 'phoned his wife, "I'll be late getting home." There was a pause while the head of the house spoke, and then he answered, "Oh, five or six minutes."—*Great Bend Tribune*.

Social: He is one of the most altruistic men I know."

Service: "What has he been doing now?"

"He spent all of the afternoon telling hair-raising stories to a couple of bald-headed men."—*Dartmouth Jack-o-Lantern*.

Cheap at the Price.

"Madam, you lost your thumb in this trolley accident all right, but how can you prove it was worth the \$3,000 you are suing the company for?"

"Judge, it was the thumb I kept my husband under."

—*Columbia Record*.

Medical Society of the State of New York District Branches

ANNUAL MEETINGS FOR 1923.

First District Branch—Tuesday, October 16th, Tuxedo Park.

Second District Branch—Monday, November 12th, Brooklyn.

Third District Branch—Friday, September 14th, Sharon Springs.

Fourth District Branch—Friday, October 12th, Lake Placid.

Fifth District Branch—Thursday, October 25th, Syracuse.

Sixth District Branch—Tuesday, October 2d, Binghamton.

Seventh District Branch—Wednesday, October 3d, Geneva.

Eighth District Branch—Thursday, October 4th, Buffalo.

THIRD DISTRICT BRANCH.

ANNUAL MEETING, SHARON SPRINGS, SEPTEMBER 14, 1923.

MORNING SESSION.

10:30—Inspection of the baths in operation.

10:30 to 11:30—Clinic—Examination of any patient brought or sent by his physician will be made by members of the Society. It is hoped that every one will bring an interesting case.

11:30 to 12—Presentation of the most interesting cases.

12 to 1—Round Table—Medical Group: Rheumatism. Surgical Group: Arthritis.

1 P. M.—Dinner at the Sharon House.

AFTERNOON SESSION, 2 P. M.

"Acute Inflammatory Glaucoma," Arthur J. Bedell, M.D., President, Third District Branch.

Address by Orrin Sage Wightman, M.D., New York City, President of the Medical Society of the State of New York.

Address by Edward Livingston Hunt, M.D., New York City, Secretary of the Medical Society of the State of New York.

"Fractures," Alexander A. Stern, M.D., Kingston.

SIXTH DISTRICT BRANCH.

ANNUAL MEETING, BINGHAMTON, OCTOBER 2, 1923.

MORNING SESSION, 10 A. M.

President's Address, John M. Quirk, M.D., Watkins.

"Cerebro-Spinal Lues," Edward Livingston Hunt, M.D., Secretary Medical Society State New York, New York City.

"Some Observations in the Interpretation of the Basal Metabolic Rate," John E. Wattenberg, M.D., Cortland.

Lunch, 2:30 P. M.

AFTERNOON SESSION.

"Insulin," John R. Williams, M.D., Rochester.

"Experiments in Insulin and Their Results," Dr. Bodansky, Cornell Physiological Laboratory, Ithaca.

"Latest Methods of Radium and X-ray Therapy," Ulysses S. Kann, M.D., Binghamton.

"State Hospital Needs," C. Floyd Haviland, M.D., Albany.

SEVENTH DISTRICT BRANCH.

ANNUAL MEETING, GENEVA, OCTOBER 3, 1923.

MORNING SESSION, 10 A. M.

President's Address, Ethan A. Nevin, M.D., Newark.

"Some Minor Foot Troubles," Francis A. Bennett, M.D., Auburn.

Discussion opened by Lee A. Whitney, M.D., Rochester, Ralph R. Fitch, M.D., Rochester.

"Ear Conditions Encountered in the General Practice of Medicine," Edwin S. Ingersoll, M.D., Rochester.

Discussion opened by Jason L. Wiley, M.D., Auburn, Austin G. Morris, M.D., Rochester.

"Disturbances of the Thyroid and Thymus in Infancy," Paul W. Beaven, M.D. Rochester.

Discussion opened by Martin B. Tinker, M.D., Ithaca, C. Harvey Jewett, Clifton Springs.

"Remarks on Cerebro-Spinal Syphilis," Edward Livingston Hunt, New York, Secretary, Medical Society of State of New York.

"The Present Status of Sensitization Diseases," Edward G. Whipple, M.D., Rochester.

Discussion opened by Stearns S. Bullen, M.D., Rochester.

Luncheon at 1 o'clock.

AFTERNOON SESSION, 2 P. M.

Address, Orrin Sage Wightman, M.D., New York, President, Medical Society of the State of New York.

"The Management of Diabetes with Insulin," Horace Gray, M.D., Boston.

Discussion opened by Samuel T. Nicholson, M.D., Clifton Springs, John R. Williams, M.D., Rochester.

"Intestinal Obstruction," Louis F. O'Neil, M.D., Auburn.

Discussion opened by Claude C. Lytle, M.D., Geneva, Charles W. Webb, M.D., Clifton Springs.

The privileges of the Country Club, including the golf links, are extended to the members of the meeting, for the day, by courtesy of the officers of the Country Club.

County Societies

BRONX COUNTY MEDICAL SOCIETY.

On Tuesday, August 21, 1923, the Bronx County Medical Society held its annual outing, dinner, and dance at the Ben Hur, City Island. There was a large attendance of members and their friends.

During the afternoon valuable prizes were competed for in the games arranged for the members. An excellent dinner, followed by dancing, completed one of the most successful events ever held by the Society.

Books Received

Acknowledgment of all books received will be made in this column, and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interest of our readers.

A PRACTICAL HANDBOOK OF DISEASES OF THE EAR, by WILLIAM MILLIGAN, M.D., Aurist and Laryngologist of the Royal Infirmary, Manchester. Consulting Surgeon to the Manchester Ear Hospital. Lecturer upon Diseases of the Throat, Nose and Ear to the Victoria University of Manchester; and WYATT WINGRAVE, M.D., Pathologist (lately physician) to the Central Throat and Ear Hospital, London. William Wood & Company, New York, 1923. Price \$3.50 net.

ENDOCRINE DISEASES, INCLUDING THEIR DIAGNOSIS AND TREATMENT. By WILHELM FALTA, Vienna. Translated and edited by MILTON K. MEYER, M.D., Neurologist to the Northern Liberties Hospital; and the Lucien Moss Home, Jewish Hospital. With a foreword by SIR ARCHIBALD E. GARROD, K.C.M.G., M.D., (Oxon.), F.R.C.P. (London), F.R.S. Third Edition, with Supplementary Notes by the Editor. (The previous editions bore the title of **THE DUCTLESS GLANDULAR DISEASES.**) 104 illustrations in the text. P. Blakiston's Son & Co., Philadelphia, 1923. Price, \$8.50.

THE PRACTICAL MEDICINE SERIES, COMPRISING EIGHT VOLUMES ON THE YEAR'S PROGRESS IN MEDICINE AND SURGERY. Under the General Editorial Charge of CHARLES L. MIX, A.M., M.D. Volume I, General Medicine. Edited by GEORGE H. WEAVER, M.D., LAW-RASON BROWN, M.D., ROBERT B. PREBLE, A.M., M.D., BERTRAM W. SIPPY, M. D., RALPH C. BROWN, B.S., M.D. Series 1923. The Year Book Publishers, Chicago, Ill.

THE MEDICAL DEPARTMENT OF THE UNITED STATES ARMY IN THE WORLD WAR. Volume I. THE SURGEON GENERAL'S OFFICE. Prepared under the direction of MAJ. GEN. M. W. IRELAND, M.D., Surgeon General of the Army. By COL. CHARLES LYNCH, M.C., LIEUT. COL. FRANK W. WEED, M.C., LOY MCAFEE, A.M., M.D. Government Printing Office, Washington, D. C. 1923.

THE DEVELOPMENT OF THE HUMAN BODY, A MANUAL OF HUMAN EMBRYOLOGY. By J. PLAYFAIR McMURRICH, A.M., Ph.D., LL.D., Professor Anatomy University of Toronto, formerly Professor of Anatomy in the University of Michigan. Seventh Edition, Revised and Enlarged. 290 illustrations, several colors. P. Blakiston's Son & Co., Philadelphia, 1923. Price, \$3.25.

Book Reviews

THE SURGICAL CLINICS OF NORTH AMERICA. FEBRUARY, 1923. Volume 3, Number 1. (Philadelphia Number). Published Bi-Monthly by W. B. Saunders Company, Phila. and London.

This number merits particular comment, since the character of the cases presented, and the general discussion relate to the type of work that every busy surgeon meets with in his daily routine, and which, from a practical point of view, is far more important than dissertations on the rare and the unusual, which, while "interesting" are of little general value or help. Thus, we find Dr. Deaver discussing the subject of hernia, very thoroughly; also, intestinal obstructions, cholecystitis, and pancreatitis. It is interesting to note that Dr. Deaver, still uses linen sutures in his hernia operations.

Dr. Frazier discusses problems in the management of pituitary disturbances, and reports that he has subjected some of these cases to radiotherapy instead of surgery.

Dr. Ashhurst's talk on gastric surgery will be read with a great deal of interest. He dwells particularly

on the importance of excising ulcers, and not to resort to gastro-enterostomy unless there is a very clear and definite indication for it.

Dr. Thomas reports a case of cystic duct obstruction by an enlarged inflamed lymph-node, presenting all the symptoms of calculus obstruction.

The principles and merits of the Mikulicz operation in cancer of the colon are brought out by Dr. Jopson. Dr. Muller reports a case of dislocation of the hip requiring open reduction, and a case of icterus due to arphenamin simulating biliary duct disease.

A variety of kidney anomalies are presented by Dr. Eliason, and an interesting series of cases of unilateral exophthalmos by Dr. Houser.

The other contributors are: Drs. Skillern, Billings, Ravdin, and Lipshutz.

HERMAN SHANN.

GREFFES TESTICULARS. Par le DOCTEUR SERGE VORONOFF. Octavo of 83 pages, illustrated. Paris, Octave Doin, 1923.

It is always interesting to read the account of careful work in the author's own words. Dr. Voronoff's brochure of eighty pages gives an account first, of his results from the grafting of testicles on animals; second of the implantation of testicles of the higher apes on man (with very positive results in each series), the final portion details his technique and discusses the origin of the testicular hormone. The, at present, classic theory that the interstitial testicular cells elaborate the hormone upon which the secondary sexual characteristics depend is combated by some of the French savants, who maintain the theory that the specialized epithelial cells elaborate the internal secretion and produce the spermatozoids. Dr. Voronoff is a convert to this view.

STURDIVANT READ.

A TEXT-BOOK ON MINOR SURGERY. By JOHN C. VAUGHAN, M.D., and ATHEL CAMPBELL BURNHAM, M.D. Octavo of 627 pages illustrated with 459 engravings. Phila. and New York, Lea & Febiger, 1922. Cloth, \$7.75.

Vaughan and Burnham have compiled a very excellent book on Minor Surgery. It is refreshing to read a text book in which the cuts are original and the text is filled with direct information. Splendidly indexed, it is very simple to get at the subject desired.

The book contains upward of 600 pages of reading matter, which is illustrated with 459 engravings. Physicians will find it a valuable book for ready reference.

HARRY R. TARBOX.

TEXT-BOOK OF ANATOMY AND PHYSIOLOGY, FOR TRAINING SCHOOLS AND OTHER EDUCATIONAL INSTITUTIONS. By ELIZABETH R. BUNDY, M.D. Fifth Edition, Revised and Enlarged by Martha Tracy, M.D., Dr.P.H., and Grace Watson, R.N., with a Glossary and 206 Illustrations, 46 in colors. P. Blakiston's Son & Co., Phila., 1923. Price \$2.50 net.

This is a fairly comprehensive although somewhat elementary treatise on the subject of Anatomy and Physiology. It will be useful as a text-book for nurses and for non-medical students of college grade. Practically all the illustrations have been taken "bodily" from standard works. They are well selected, however, and have been carefully reproduced. Throughout the volume there are numerous "clinical notes" which, as the name implies, refer to various clinical conditions which have as their direct basis a definite alteration in the anatomy or physiology of a particular organ or region. These notes are interesting but not always accurate. This is particularly unfortunate since the book will probably be used very largely by nurses. The latter already know too many medical things that "ain't so."

FRANK E. MALLON.

COUÉ FOR CHILDREN. By GERTRUDE MAYO, with a preface by EMILE COUÉ. Illustrated. Dodd, Mead & Company, 1923. Price, \$1.50.

This book is another product of the Pollyanna School of Psychology. From the title one might infer that it aims to explain Coué's "discoveries" to children, but as a matter of fact it deals with the application of "auto-suggestion" to children, the new-born, and the soon-to-be-born (no mention made in the text of treating the fetus during the second stage of labor with autosuggestion). In another sense, the title "Coué for Children" is appropriate, for the book will be ingested in its entirety by the great class of individuals who are still psychological children, as adjudged by the Binet-Simon test. The *raison d'être* of this and similar books is that Coué's dominating personality and Christ-like attributes could not possibly escape a host of hero-worshippers.

FREDERIC DAMRAU.

THE HEART IN MODERN PRACTICE, DIAGNOSIS AND TREATMENT. By WILLIAM DUNCAN REID, A.B., M.D., Chief, Heart Clinic, Boston Dispensary. 32 illustrations. J. B. Lippincott Co., Philadelphia. 1923. Price, \$5.00.

In the preface of this book Reid states his intention of incorporating the best of the newer cardiac knowledge. It is the opinion of the reviewer that he has chosen this material in a fashion that will give general satisfaction.

Among the recent smaller volumes on heart disease, this one stands out prominently for several reasons. The language is plain and simple, the style direct, and the division of the book into three sections, on etiology, function and structure, respectively, permits proper emphasis of the basic material presented.

One of the most interesting features of book analysis is the study of an author's method of chapter construction and chapter inter-relation. Reid takes us through a few preliminary chapters on anatomy, methods of examination and classification of heart cases, and then introduces us to the best portion of his book, a section of 78 valuable pages on the etiologic types of heart disease. In turn, rheumatic heart disease, septic heart disease, cardiovascular syphilis, arteriosclerotic heart disease, hypertensive heart disease, the thyroid heart, the heart in diphtheria, congenital lesions and effort syndrome are discussed with fine emphasis of their distinctive features. The Boston school has always been very sound on this point of etiologic grouping of cardiac disease, and Reid lives up to the tradition.

Upon the polygraph and the electrocardiograph he has written well. Chapters III and IV are models of brief presentation of large subjects. The student would do well to scan these chapters as would also the practitioner aiming for the latest and best.

The names of master physiologists and clinicians should be known to us in association with the fruits of their labors, and in what better way can they receive the credit that is theirs than by reference to them in the text? Reid does not overdo this courtesy, but he acknowledges his frequent debt, and by number refers to the original sources by foot-lines, which are of easier view than references at ends of chapters.

On treatment, the author is very sound, emphasizing the removal of foci of infection, and the general principles of rest, massage, passive exercise, later active exercise, diet, baths, dress, and climate. Symptomatic treatment is considered fully, and under drug therapy digitalis receives the place in front-stage that it deserves. He pays a tribute to American-grown digitalis and gives with sufficient detail the Eggleston method of dosage, presents a modification easier to apply, and discusses the less popular members of the foxglove group. Considering the great value of strophanthin intravenously in acute cardiac dilatations, the reviewer regrets that Reid

did not state his choice of preparation. When so many are impotent, it is helpful in an emergency to know the really potent.

Illustrative case reports are very Boston, and 64 pages of this book of 337 pages are thus devoted to 29 case histories. While admittedly helpful, the pages could better have been devoted to wider discussion of points in diagnosis and treatment.

The review of this satisfactory book is not complete without a statement that it is splendidly printed in large type, the figures and plates good, the proof-reading most accurate.

FRANK BETHEL CROSS.

DISEASES OF THE RECTUM, ANUS AND COLON. By SAMUEL GOODWIN GANT, M.D., LL.D., Chief Department Diseases of Colon, Rectum and Anus, Broad Street Hosp. Three octavo volumes, 1616 pages, 1128 illustrations, 1085 figures, 10 insets in colors. Phila. and London: W. B. Saunders Co., 1923. Cloth, \$25.00 net.

We have not had a text-book on the diseases of the colon, rectum and anus since the classical work of the late James P. Tuttle which can compare with the three volumes on the same subject by Dr. Samuel G. Gant. These books cover the whole subject in a practical, scientific and thorough manner most creditable to the author. The workers in this field of specialization cannot fail to appreciate that Dr. Gant has aided in the elevation of this specialty to a plane in medical education which requires the highest standard of scientific knowledge.

These volumes can be read by any practitioner of medicine with profit.

MARTIN L. BODKIN.

NURSERY GUIDE FOR MOTHERS AND NURSES. By LOUIS W. SAUER, M.A., M.D., Senior Attending Pediatrician, Evanston Hospital, Chicago. Illustrated. C. V. Mosby Co., St. Louis, 1923. Price, \$1.75.

The attention commanded by any treatise depends largely upon the standing of the writer and the success with which he fulfills his avowed object in writing on a given subject.

Dr. Sauer is a pediatrician of accepted standing so that his publications at once demand serious consideration; further, his object in writing a nursery guide for mothers and nurses would seem to have been successfully accomplished.

It can no longer be said the young mother has no access to reliable information as to the accepted scientific handling of her child, not only as to its feeding but also as to its clothing, its bathing, its habits, and its growth and development.

The reading matter takes up the care of the well child, the premature child and the sick child; it also gives antidotes for poisons, and has an appendix with weight guides and charts.

HÆMATOLOGY IN GENERAL PRACTICE. By A. KNYVETT GORDON, M.B., B.C., B.A. (Cantab), Medical Superintendent Birol Pathological Research Laboratories. William Wood & Co., New York, 1923. Price, \$1.75 net.

This little manual is of a size which may be carried conveniently in a coat pocket for perusal at odd moments. It is written for the practising physician and is a monograph on the blood-picture in the more common diseases, with special emphasis on the stained smear. The author traces the erythrocyte and the leucocyte back to a common ancestor in the bone-marrow. He claims that valuable information may be gained from recognition of immature cells in the smear and postulates that polynuclears predominate in infections due to cocci and lymphocytes in bacillary infections. He uses this information in recommending vaccine therapy, which he believes to be valuable. This is an interesting little book and worth a reading.

E. B. SMITH.

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STUDIES IN THE USE OF INSULIN.*

By JOHN J. R. MACLEOD, M. B., F. R. S.
TORONTO.

PRIOR to 1889 physicians had observed the frequent occurrence of morbid changes in the pancreas in patients who had died of diabetes. This led many experimental workers, including Claude Bernard, to see whether the symptoms of the disease could be induced in laboratory animals through interference with the pancreatic junction brought about by its extirpation, or by blocking the ducts. No success attended these experiments until the date mentioned, when Minkowski and von Mehring announced their well-known discovery which has been the starting point for all the modern work. Some twenty years before this, Langerhans had described the collections of cells, now known by his name, and immediately following it anatomists, particularly Laguesse and Diamare, undertook elaborate investigations concerning the structure and relationships of the islets. We owe much to this careful work, especially since it led to the hypothesis that it is these structures, and not the secreting cells of the pancreas, that the anti-diabetic function of the gland is due. Minkowski and Lepine had supposed that this function must depend on the production of an internal secretion for which the name insulin was suggested a few years later by Sir E. Sharpey Schafer.

Stimulated by these suggestions several observers attempted to furnish direct proof for the presence of this anti-diabetic hormone in extracts of pancreas, but without satisfactory results until 1908 when Zuelzer, by extracting the gland with alcohol, succeeded in preparing an extract which by intravenous injection was capable of greatly decreasing the hyperglycæmia and glycosuria in animals injected with epinephrin. Zuelzer tried his extracts on patients suffering from diabetes and found the symptoms in certain of them to be alleviated. Toxic manifestations made it necessary, however, to abandon further trials. Sufficient faith that the elusive hormone would nevertheless ultimately be obtained in extracts of pancreas prompted experimentalists, particularly in this country, to

continue the search and with results which, though far from convincing, were of such a nature as to make it clear that hope should not be abandoned. Especially important in this connection were the results of Clark, who showed that in Locke's solution perfused through the blood vessels of the pancreas substances appeared which endowed the solution with the property of causing sugar to be utilized by the isolated heart much more quickly than when Locke's solution alone was perfused. The anti-diabetic hormone had evidently been secreted into the Locke's solution while this was being perfused through the pancreas.

It came to be realized that the chief difficulty standing in the way of the preparation of satisfactory extracts of pancreas was that these must contain, besides insulin, the powerful proteolytic enzymes, such as trypsin, which are produced in the acinar portion of the gland.

The problem was to counteract the destructive influence of these enzymes, and the credit of doing this belongs primarily to F. G. Banting and C. H. Best.

The basis of the research of these investigators was furnished by the well-known fact that the acinar (digestive secreting) cells of the pancreas become degenerated when the ducts of the gland are ligated, whereas the islet cells remain intact and when the pancreas has been caused to degenerate by this operation the animal does not develop the symptoms of diabetes. They made extracts of the thus degenerated pancreas and by injecting these intravenously into depancreated, and therefore diabetic, dogs found that the hyperglycæmia and glycosuria were relieved. They afterwards found that similar results could be obtained by using alcoholic extracts of adult (beef) pancreas, as had previously been suggested by Zuelzer and by E. L. Scott and, if the injections were continued daily, that the animals lived for much longer than non-treated (depancreated) animals.

These extracts with alcohol were, however, found to be unsuitable for continued injection into man because of the irritation which they caused. It became necessary to free them of the irritating substances and this was achieved by J. B. Collip by a method of fractional precipitation with alcohol. This achievement made it pos-

* Read at the Annual Meeting of the Medical Society of the State of New York, at New York City, May 22, 1923.

sible to investigate the further effects of insulin both on patients and on laboratory animals, and in the latter work E. C. Noble, J. Hepburn and H. K. Latchford participated. In diabetic dogs it was shown that not only were the symptoms of hyperglycæmia and glycosuria removed by insulin but also: 1, that the respiratory quotient ($\text{CO}_2 \div \text{O}_2$) became raised when the animals were given carbohydrate; 2, that glycogen became stored in the liver; 3, that the excretion of Ketone bodies in the urine became much reduced or disappeared; 4, that fat infiltration of the liver and lipæmia disappeared. In untreated diabetic animals each of these four functions is highly abnormal; for example, the respiratory quotient is unaffected by giving sugar, glycogen is practically absent from the liver, Ketone bodies are present in the urine and the liver and blood contain large quantities of fat. These results furnished unassailable proof that insulin could remove the symptoms of diabetes and it was soon possible to confirm this in diabetic patients. The value of insulin in the treatment of this disease will be discussed by the other contributors to the symposium.

Valuable though insulin undoubtedly is, from the clinical standpoint, it is probably still more so from the scientific, since it furnishes us with a new instrument for the investigation of problems of metabolism. It provides a key by means of which it may be possible to open doors which hitherto have blocked the way to a solution of the many mysteries of intermediary metabolism not only of carbohydrates but of fats and proteins, as well.

With the assistance of Eadie, McCormick, Allen, Miss K. O'Brien, and others, these physiological problems are being intensively investigated at the present time, but it would be out of place here to do more than merely to indicate the general nature of the results which so far have been obtained.

Perhaps the most interesting results have concerned the effect of insulin on the normal animal. It causes the sugar of the blood, which is remarkably constant in amount for different animals, to become quickly lowered (J. B. C.) and when a percentage of about 0.045 is reached the animal develops highly characteristic symptoms. These consist, in rabbits for example, of violent convulsions which last for a minute or so, and are then followed by a condition of coma until another convulsive seizure supervenes. These alternate phases of convulsions and coma, with perhaps intervals during which the animal is apparently normal, continue until at last it dies of respiratory failure with very much depressed temperature. Rigor mortis sets in almost before the animal is dead and the arterial blood is very dark in color.

The development of these symptoms when the blood sugar reaches the level of about 0.045 per

cent has been taken as the basis for the pharmacological assay of insulin, a unit being defined as the amount which lowers the blood sugar to this level within three to four hours after the injection in a rabbit weighing about two kilogrammes and starved for twenty-four hours before the injection. Since this standard unit is said to be too large for the treatment of certain cases of mild diabetes we have been advised by our clinical associates to adopt for therapeutic purposes a unit which is one third its strength. The clinical unit of insulin as supplied at present is, therefore, one-third of the amount which is capable of lowering the blood sugar of a 2-Kg. rabbit to the convulsive level within three hours.

Another fact discovered by these physiological investigations is that the symptoms above described are immediately antidoted by administering sugar to the animal. If the sugar is given by mouth it does not much matter whether this be glucose or cane sugar, but when given subcutaneously or intravenously it is glucose only which has the antidoting effect. This difference depends of course on the fact that when cane sugar is given by mouth it is split by hydrolysis into glucose and levulose before being absorbed into the blood; when cane sugar is directly added to the blood stream hydrolysis does not occur.

Insulin can also prevent the development of hyperglycæmia in the numerous experimental procedures which are known otherwise to have this effect. Thus puncture of the fourth ventricle of the medulla, epinephrin, asphyxia and ether all cause a marked increase in blood sugar in dogs and rabbits, but none of them has this effect if the animals have previously been injected with large amounts of insulin.

Its effect on the respiratory exchange of normal animals is of great interest. The respiratory quotient becomes slightly raised and there is, in dogs at least, an increase in energy metabolism which is proportional to the increased muscular tone which precedes the convulsions. In rabbits the energy metabolism usually becomes depressed, but there is often a rise in the respiratory quotient. In mice the depression is very pronounced. These results indicate that insulin alters the type of metabolism and it is very probable that an intensive study of the exact nature of this alteration will throw much light on many problems of metabolism.

It is remarkable that insulin does not cause glycogen to become increased in the muscles and the liver of normal animals as we have seen it to do in those that are diabetic. This indicates that there is a fundamental difference in the action of this hormone in normal and diabetic animals and it remains to investigate the meaning of this difference.

Finally, direct evidence that insulin is secreted by the isles of Langerhans has been provided by

experiments on certain fishes in which these structures exist distinct and apart from the pancreas. They exist as so-called principal islets which may attain a relatively large size in some fishes, such as the angler fish. An extract of these principal islets contains large amounts of insulin which, however, is entirely absent in extracts prepared from the pancreas itself. This proves definitely that the islets of the mammalian pancreas are its source, as indeed the name "insulin" implies.

THE TREATMENT OF DIABETES WITH AND WITHOUT INSULIN.*

By ELLIOTT P. JOSLIN, M.D.,
BOSTON, MASS.

A MILLION diabetics, more or less, were living in the United States before the Great War, and only too frequently underwent replacement by another million. Undernutrition raised the average duration of life of 597 of my fatal diabetic cases between June 1914 and April 1922 to six years, and advanced the Boston average two years in a somewhat longer period. Though it might not be fair to claim that the average duration of life of all diabetics in the country has doubled in this period, it is evident that the army of a million three years ago is not replaced today by another million but instead is growing in size. With insulin who can hazard a guess at the total number of diabetics in the United States five years hence?

Upon the announcement of Banting and Best's discovery and the work of the Toronto group a year ago, various worrying, medical, diabetic souls who had sunk their all in diabetic undertakings queried whether insulin had ruined their future. I assured them it had not. Already there are too many rather than too few diabetics in the country to treat. The number is increasing, and there will always be enough to go around.

The problem in diabetic management today is not, therefore, how to get diabetics to treat, but rather how to get doctors to treat the diabetics. The project is a large one and must be approached from broad lines. With the multifarious duties with which the general practitioner is involved and the hopelessness of sending all diabetics to an institution for medical care, the only solution lies in such simplification of treatment as any physician can practice himself. To the furtherance of this end and this alone this paper is devoted.

Treatment itself has become extraordinarily simple. It is less work now to care for ten diabetics in the hospital or in the office than it was to manage the treatment of a single diabetic when I began practice. Less visits are required, diet

lists are simplified, even qualitative urinary examinations by the doctor are largely abolished, because they can now be made by the patient who is taught to keep sugar-free. Nurses and school girls trained in dietetics are at our disposal, the public is generally far better educated and physicians themselves coöperate in treatment in a way they were unable to do in 1900.

Most diabetics are mild and the percentage of mild diabetics as well as the total number of diabetics is constantly growing greater. Symptomless cases are discovered by routine urinary examinations, and cases with symptoms are more apt to go earlier to a doctor than a few years ago; weighings of school children disclose cases. Furthermore, mild cases, formerly made severe at the inauguration of treatment, now run less hazard when their disease is discovered. Cases are thus diagnosed more promptly, and just as Naunyn emphasized, and experience with tuberculosis proves, the earlier a case comes for treatment, the better the outlook. The mild case of diabetes, which formerly entered the hospital and underwent sharp restriction of carbohydrate with free indulgence in protein and fat as a compensation, but with death for a penalty, is now seldom subjected to this insult, because all agree that undernutrition in some form or other is the most efficient method by which to remove sugar from the urine.

Patients coming for treatment should be regarded as mild. They should be given a chance to show whether their disease is of slight intensity or of moderate intensity before they are subjected to the treatment of the severest type of diabetes. Hence, my practice of giving every diabetic an opportunity to declare his innocence before judging him guilty. The severest possible diabetic may be justly condemned to a formula by which he can secure the largest possible amount of fat for the smallest possible amount of carbohydrate with which to avoid acidosis, but the mildest diabetic should not be sentenced to this ration, but be given the largest quantity of carbohydrate compatible with a constantly normal blood sugar and normal urine and then the question of acidosis will not even rise above the horizon.

It is a great comfort to me that Allen and Newburgh and Marsh feel so confident of the non-progressive character of diabetes. I wish I felt as confident. However, accepting their views as sound, there is every reason to treat the mild diabetic as a mild diabetic from the start and give him the amount of carbohydrate and calories which his urine and blood on tests show that he tolerates, rather than condemn him for a decade or more to a caloric diet made up largely of fat, but low in carbohydrate. If their contention is correct that the diabetes is non-progressive, it should be just as much non-progressive with calories the same, whether the patient is taking

* Read at the Annual Meeting of the Medical Society of the State of New York, at New York City, May 22, 1923.

100 grams of carbohydrate or 30 grams of carbohydrate provided blood and urine are normal.

Elaborate formulæ for the arrangement of the diabetic diet are unnecessary. Any patient who can keep sugar-free with one gram of protein per kilogram body weight can safely have three grams of fat for each gram of carbohydrate in his diet if he requires it, though a lower fat carbohydrate ratio is to be preferred. If the carbohydrate must be kept so low that he cannot keep sugar-free and maintain strength and weight, then he needs more calories and the only safe way to give more calories is to lower the protein still further, namely, to 2/3 gram per kilogram body weight, when the fat can be raised without harm to as much as four grams for each gram of carbohydrate which the urine of the patient shows that he tolerates. In brief, this is the whole sum and substance of the modern treatment of diabetes.

The technique of dietetic treatment is extraordinarily simple with or without insulin. Any doctor who is willing to weigh out his own food or that of a diabetic for a single meal can learn more about food values in a half-hour than by study of books for a day. Acquaintance with the values of carbohydrate, protein, and fat in the meager menu of the diabetic is essential for doctor and patient. (See Table 1.) For dietetic treatment alone it is advantageous for the patient to be able to test his urine for sugar, but if insulin is to be used it is absolutely essential.

The use of insulin by the general practitioner in diabetes is nearly as simple. The method adopted by the writer in the hospital is just as applicable in private practice. Patients coming to the New England Deaconess Hospital with sugar in the urine are given one unit of insulin 30 to 15 minutes before their first meal. That meal is made up from one of four Test Diets, which is nearest to the entire daily diet the patient has been taking. (See Table 2.) This diet is continued until the next morning when one advances to the next Test Diet. Before the second meal the patient receives two units, before

the third meal the patient receives three units, before the fourth meal the patient receives four units, and before the fifth meal five units, and

TABLE 1. DIETETIC VALUES OF FOODS COMMONLY USED BY DIABETICS.

Water, clear broths, coffee, tea, cocoa shells and cracked cocoa can be taken without allowance for food content.

Foods arranged approximately according to content of carbohydrates.

		5%	10% *	15%	20%
* Reckon average carbohydrate in 5% veg. as 3%—of 10% veg. as 6%.					
VEGETABLES (fresh or canned)	1%-3%	3%-5%	10% *	15%	20%
	Lettuce	Tomatoes	Str. Beans	Green Peas	Potatoes
	Cucumbers	Brussels	Pumpkin	Artichokes	Shell
	Spinach	Sprouts	Turnip	Parsnips	Beans
	Asparagus	Water Cress	Kohl-Rabi	Canned	Baked
	Rhubarb	Sea Kale	Squash	Lima	Beans
	Endive	Okra	Beets	Beans	Green
	Marrow	Cauliflower	Carrots		Corn
	Sorrel	Egg Plant	Onions		Boiled
	Sauerkraut	Cabbage	Green Peas		Rice
Beet	Radishes	canned		Boiled	
Greens	Leeks			Macaroni	
Dandelions	String Beans				
Swiss Chard	canned	Strawberr's	Raspberries	Plums	
Celery	Broccoli	Lemons	Currants	Bananas	
Mushrooms	Artichokes	Cranberries	Apricots	Prunes	
		Peaches	Pears		
FRUITS	Ripe Olives (20% fat)	Pineapple	Apples		
	Grape Fruit	Blackberr's	Blueberries		
		Oranges	Cherries		

1 gram protein4 calories
 1 gram carbohydrate .4 calories
 1 gram fat9 calories
 6.25 grams protein contains 1g. nitrogen
 1 kilogram = 2.2 pounds
 30 grams g. or cubic centimeters c.c. = 1 ounce
 A patient "at rest" requires 25 calories per kilogram

30 Grams 1 Oz.	Carbohydrates	Protein	Fat	Calories
Contain Approximately	G.	G.	G	
Vegetables 5%	1	0.5	0	6
Vegetables 10%	2	0.5	0	10
Shredded Wheat	23	3	0	104
Uneddas, two	10	1	1	53
Potato	6	1	0	28
Bread	18	3	0	84
Oatmeal, dry wgt	20	5	2	118
Oysters, six	4	6	1	49
Milk	1.5	1	1	19
Meat (cooked, lean).....	0	8	5	77
Fish	0	6	0	24
Chicken (cooked, lean).....	0	8	3	59
Egg (one)	0	6	6	78
Cheese	0	8	11	131
Bacon	0	5	15	155
Cream, 20%	1	1	6	62
Cream, 40%	1	1	12	116
Butter	0	0	25	225
Oil	0	0	30	270

TABLE 2. INSULIN DIABETIC DIETS.

TEST	DIETS	TOTAL DIET				CARBOHYDRATE (C)					PROTEIN AND FAT (PF)						
		Carbo-hydrate	Protein	Fat	Calories	5% Vege-tables	Orange	Oat-meal	Shred-ded Wheat	Unceda	Potato	Egg	Cream 20% Fat	Bacon	Butter	Meat	
TEST	T.D.1	181	46	44	1304	300	300	..	3	4	240	3	120	..	..	..	1
	T.D.2	101	35	43	931	300	300	..	1	2	120	3	120	..	..	..	2
	T.D.3	66	24	37	693	300	300	..	1/2	2	..	2	120	..	..	..	3
	T.D.4	34	15	30	466	300	200	..	..	..	..	1	120	..	..	..	4
MAINTENANCE	C1+PF1	14	15	30	386	300	...	..	..	..	..	1	120	..	..	..	1
	C2+PF2	22	19	37	497	300	100	..	..	..	..	2	60	..	15	..	2
	C3+PF3	32	24	37	557	600	100	..	..	..	..	2	60	..	15	..	3
	C4+PF4	42	29	52	752	600	200	..	..	..	..	2	60	30	15	..	4
	C5+PF5	52	32	66	930	600	200	15	..	..	..	2	60	30	30	..	5
	C6+PF6	64	44	83	1179	600	200	30	..	..	..	2	120	30	30	30	6
	C7+PF7	74	52	88	1296	600	300	30	..	..	..	2	120	30	30	60	7
	C8+PF8	84	61	94	1426	600	300	30	..	2	..	2	120	30	30	90	8
	C9+PF9	98	65	106	1606	600	300	30	1/2	2	..	2	180	30	30	90	9
	C10+PF10	109	66	119	1771	600	300	30	1	2	..	2	180	30	45	90	10
	C11+PF11	135	80	135	2075	600	300	30	1	2	120	2	240	30	45	120	11
	C12+PF12	159	84	135	2187	600	300	30	1	2	240	2	240	30	45	120	12

thereafter five units before each meal. Along with the increase in insulin one progresses daily to Test Diets of lesser food value. So soon as the patient is sugar-free, which usually results within 36 to 72 hours, one simply trades over to a Maintenance Diet with a similar quantity of carbohydrate, but with more protein and fat and thereafter proceeds day by day until sufficient calories are obtained. Coincidentally, the insulin is increased or decreased gradually according to whether sugar shows or is absent from the urine, and according to one's ideas as to the amount of carbohydrate the patient should receive. Little by little the noon dose is abolished and usually within two weeks the patient can be sent home to his doctor, having copied his own chart and having been instructed about the continuance of treatment with its possibilities for good or harm.

There is nothing obscure about the dosage of insulin any more than there is anything obscure about the amount of gasoline it takes to run an automobile. With some patients one unit will accomplish a great deal, but with others less, just as one gallon will yield 20 miles to one automobile and but 10 miles to another. But even with the same patient and the same quantity of insulin, just as with the same automobile and the same amount of gasoline, the result obtained depends upon the doctor just as much as upon the chauffeur. The cost of the average daily dose of insulin taken by 127 of my patients is about the same as that of a gallon of gasoline.

Since August, 1922, it has been my good fortune to treat 219 cases of diabetes with insulin. A summary was made in February, 1923, at which time it was learned that 53 cases of diabetes during an average period of 63 days were taking 11 units of insulin per day. A later summary was made May 1, 1923, and of the 127 cases sent home to as many different doctors the average dosage of insulin per day was still 11 units. There are but 3 cases taking over 30 units, and there are 13 children taking less than 6 units a day. Fatal accidents with insulin, save in one case, have not occurred. I confess that I anticipated such accidents and I still expect them, though increasing cautions are being placed around all patients who are discharged. What I wish most to emphasize here is the extraordinary simplicity of the treatment of diabetes with diet and with insulin and to call attention to the fact that the overwhelming majority of diabetics coming for treatment is mild and should not be dietetically classified as severe.

The administration of the insulin has been attended without difficulty. None of the patients in the hospital have developed an abscess, and I have heard of but one patient following discharge from the hospital who has developed an abscess.

Hypoglycemic reactions have been rare for the last few months with the treatment outlined

above. With the first 5,100 injections there were 30 reactions. Several of these would have been serious had they not occurred in patients who were closely watched. Nervousness, restlessness, hunger, sweating, weakness and tremor, have been the outstanding symptoms, and in but one or two cases has there been an approach to unconsciousness. All have recovered quickly with the juice of an orange. It has been unnecessary to resort to adrenalin or to intravenous injection of glucose, which has been recommended and employed in emergencies by others with success in quantities of 25 grams of glucose in a solution of from 5 to 20 per cent strength.

The one fatal accident which occurred was due not to hypoglycemia but to the omission of the drug. This was the case of a little boy with the severest type of diabetes of four years' duration who had been under treatment in the hospital for a month, had been discharged to his home, but during the absence of his doctor on his vacation felt so well that he left off insulin for five days. There was other serious illness in the family and he escaped observation. Thereupon he developed an infection, returned to the hospital in coma, and died seven and one-half hours later. It is possible that if he had been given 20 units of insulin upon his return to the hospital and 10 units more each hour for two or three hours and thereafter every other hour until he had received 60-100 units he might have recovered. As it was, in those early experimental days he received but 40 units of insulin in seven hours. The stage of coma was so extreme that recovery hardly seemed possible, though such remarkable cases of recovery have been reported by Bock, Field, and Adair,¹ from the Massachusetts General Hospital, and by Olmsted,² of Washington University, St. Louis, that one must never despair.

Treatment of diabetes with and without insulin presents remarkable contrasts. With insulin the tolerance for carbohydrate can be increased but whether this increase of tolerance is wholly dependent upon the amount of insulin given or upon a reactivation of the islands in the pancreas is not yet definitely known. There is some indication to believe that the pancreas regains a portion of its function which seemed to be lost. The shortening of hospital stay, the rapidity with which patients acquire a maintenance diet with the help of insulin as compared with treatment without insulin is manifested concretely by my own experience with test and maintenance diets. Not only has it been feasible to reduce the test diets from five to four, but to increase the calories of the maintenance diets more rapidly. However, this is not wholly due to insulin. Acknowledgment should be made to the work of Newburgh

¹ Bock, Field, and Adair: *Medicine*, 1923.

² Olmsted: Personal communication.

and Marsh and Woodyatt in America and to Petren in Sweden along these lines.

The total mortality and the causes of death of patients treated with and without insulin are also sharply in contrast. Between 1898 and 1915, of the 69 cases of diabetes in my practice who perished during the first year of the disease, 86 per cent died of coma; of 426 cases who died between 1898 and 1915 the mortality due to coma was 64 per cent, between 1898 and 1916, 60 per cent, between 1898 and 1918, 57 per cent, a figure which is similar to that of von Noorden's for 292 fatal cases which was 58 per cent. During the year 1916 alone there were 77 deaths and of these 44 per cent were due to coma. Of the last 100 deaths prior to January 1, 1923, among patients not treated with insulin, the mortality from coma was 40 per cent, but of 219 cases treated with insulin since August last there have been but seven deaths, and of these but one from coma or a mortality from coma of 14 per cent. Tuberculosis, septicemia, pneumonia, meningitis, angina pectoris and erysipelas, respectively, account for the remaining six deaths. And to show how small a rôle coma plays I can further add that since August 7, 1922, a total of 397 cases of diabetes have been treated with or without insulin on my service at the New England Deaconess Hospital and at Mrs. Leatherbee's boarding-house, with the single death from coma above cited.

TABLE 3. THE FALLING PERCENTAGE OF DEATHS DUE TO COMA IN DIABETIC MORTALITY.

Period	Author	Description Deaths	Deaths	
			Total No.	Due to Coma %
1898-1915	E. P. J.	Duration of Disease Under 1 year.	69	86
1898-1915	E. P. J.	All Cases	426	64
1898-1916	E. P. J.	All Cases	516	60
1917	von Noorden ¹	All Cases	292	58
1898-1918	E. P. J.	All Cases	606	57
1916	E. P. J.	All Cases	77	44
Oct., 1921 to Jan., 1923	E. P. J.	Non-insulin cases	100	40
Aug., 1922 to May, 1923	E. P. J.	Insulin cases (219)	7	14

¹ Von Noorden: *Die Zuckerkrankheit*, 7th Edition, Berlin, 1917, p. 342.

To spectators in pre-insulin days faithful diabetic patients resembled that straggling group of invalid soldiers marching down the Champs Elysées at the close of the war, led by a man in a wheel-chair, followed by thin, wan cripples, minus an arm, a leg, or an eye, examples of undaunted courage but victors over death. Since the advent of insulin, the procession has changed and resembles that of an earlier period of the war when a group of hopeful, alert, and earnest men marched in Paris to do honor to Lafayette. Today a similar group of hopeful, alert, and earnest patients look to Toronto, not with the words, "Lafayette, we are here," on their lips, but instead, "Banting, Best and the Toronto Group, voici vos diabétiques!"

THE INSULIN TREATMENT OF DIABETES MELLITUS

By JOHN R. WILLIAMS, M.D.

ROCHESTER, N. Y.

FORMERLY the treatment of diabetes was a bugbear to the physician. The technical procedures were so difficult and the end results so unsatisfactory that the majority of patients preferred not to be treated and physicians were content to have them follow this course. The discovery of insulin has given new hope to patients and physicians alike. Many questions arise in the minds of both as to the possibilities and limitations of this wonderful discovery. I shall attempt to answer some of the most frequently recurring inquiries. We have used insulin in the metabolic clinic at the Highland Hospital since May, 1922 on upwards of 200 cases

1. To whom should insulin be given? We have used it with benefit in all kinds of cases both mild and severe, complicated and uncomplicated with other disease.

2. Is it necessary to be certain about the diagnosis? Yes, this is most important. In the year 1922 we examined upwards of 150 individuals alleged to have diabetes, the diagnosis being based on the finding one or more times of a trace of reducing substance in the urine. The indiscriminate administration of insulin to these cases might have been serious if not fatal. The clinical phenomena to be observed in true diabetes are:

a. High blood sugar, normal range 120 to 150 milligrams per 100 c. c. blood (3), range in diabetes as a rule 150 to 500 milligrams.

b. Urine sugar.

c. Acetone and diacetic acid in urine, in severe cases.

d. A knowledge of the diet of the patient when above tests are made. A fasting severe diabetic may have a normal blood sugar and be urine sugar and ketone free. A mild diabetic overeating on a general diet, may have a high blood sugar and much urine sugar.

3. Can insulin be given by mouth? We have given it by mouth through a duodenal tube and have injected it into the rectum without obtaining the slightest benefit. We have rubbed it into the skin with slightly beneficial but very uncertain results. At present it must be administered subcutaneously by means of a hypodermic needle.

4. How do you proceed to give insulin?

a. The diagnosis of diabetes mellitus should be definitely established.

b. It is our practice then to put the patient on a diet which will represent the normal minimum

* Read at the Annual Meeting of the Medical Society of the State of New York, at New York City, May 22, 1923.

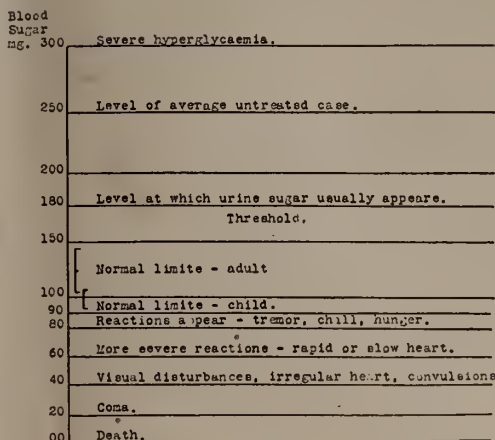
food requirement for heat and energy with the body at rest. In such a diet we arbitrarily give 50 grams of carbohydrate food, from $\frac{2}{3}$ to 2 grams of protein per kilo or 2.2 pounds of body weight, and sufficient fat to bring the diet, up to a total intake of 30 calories per kilo of body weight. Thus an adult individual weighing 132 pounds or 60 kilos would be given a diet of approximately 1800 calories consisting of 50 grams of carbohydrate, 60 grams of protein and approximately 150 grams fat.

This program is varied according to the severity and clinical condition of the case. Over a period of three or four days, observations are made as to the amount of glucose that is utilized in the test diet. It is assumed that all of the carbohydrate, 58 per cent of the protein and 10 per cent of the fat are convertible into glucose. The above diet, therefore, may yield approximately 100 grams of glucose. A daily quantitative sugar determination is made of the 24 hour urine. If an average of 20 grams of urine sugar is excreted, it is assumed that the difference between this amount and the glucose content of the diet is burned. Provision is then made in insulin administration to care for this unburned glucose fraction.

5. What is the significance of blood sugar in insulin therapy? Blood sugar estimations have a different meaning under this new treatment than formerly. To properly interpret blood sugar findings, one must know the time of day when sample was taken, also its relation to the kind and quantity of food eaten and the size and time of the previous dose of insulin. The blood sugar is highest in the morning before insulin administration and usually lowest four hours after the treatment. If more than one dose be given during the day, it usually will be found lowest three to four hours after each succeeding dose. One really should learn the blood sugar curve produced by insulin administration. Insulin should only be given when the blood sugar is higher than normal, that is when it ranges above 160 milligrams. The insulin should be reduced or discontinued when the minimal figure is under 90 milligrams. The following chart explains the significance of various blood sugar levels.

It will be observed by the foregoing chart that the threshold or blood sugar level where the kidneys eliminate sugar is usually 180 milligrams. In old long standing cases it may be higher. In children it is usually lower. It is well to determine this threshold point, because when it is known, a simple urine sugar examination will give some evidence of the blood sugar level. The presence of urine sugar indicates a higher level than the threshold. In the same manner if the blood sugar level be determined when reactions occur, the appearance of these phenomena points

CHART SHOWING BLOOD SUGAR RANGE OR LEVEL AT WHICH SERIOUS PHENOMENA APPEAR.



to a blood sugar down to a definite point. Hence the occurrence of insulin reactions and urine sugar serve as a rough guide to the blood sugar level, making unnecessary many of these difficult tests.

6. How is the dose of insulin determined? Having tested the patient with a diet approximating the normal metabolic requirement, as has been described, and having ascertained what part of the glucose in this diet is unburned, 1 unit of insulin is given for each 3 grams of urine sugar. Thus if the body fails to utilize 25 grams of sugar, from 8 to 10 units of insulin can be safely given. In our clinic it is the practice to give two-thirds of this dose before breakfast and the remainder before supper. This is continued for three days. If the dose proves insufficient as determined by daily urine examinations, it is increased from 2 to 5 units at a time. In the great majority of our cases the preliminary dose is 10 units daily. If the patient utilizes the food and the blood sugar approximates the normal range, the diet is increased rapidly at intervals of forty-eight hours and also the insulin so that in from seven to ten days, the effort is made to get the patient on a diet which will enable him to do light work. In very few cases are we unsuccessful in this endeavor.

7. What do you do in case of reactions? We try to produce a reaction on each patient while in the hospital so that the phenomenon will be recognized by the patient if it should occur at home. As a rule a tremor, acute hunger, chill or slight visual disturbance are all that are appreciated. The blood sugar level during this period is determined and noted as a future guide. The patient is instructed to take at once the juice of half an orange and if this does not give relief in a few minutes, more orange juice. In case of serious reaction, 2 or 3 teaspoonfuls of strained

honey will give prompt relief. Undue emphasis should not be placed on reactions. There is a tendency on the part of diabetics to ascribe every bad feeling to insulin therapy. Reactions practically always occur in from two to four hours after the injection. Sensations experienced several hours later or the next day are almost certain to be due to other causes. If reactions occur they may be corrected in various ways. If the patient is greatly underweight and on a low diet, he should be given more food, particularly before the reaction period. If the body weight be satisfactory, the insulin dosage may be diminished, or both the diet and insulin dosage may be rearranged or differently spaced during the day.

8. Is dietary regulation necessary? Yes, quite as necessary as before the discovery of insulin. A patient eating liberally of food and beyond his capacity to utilize it will injure himself as surely as without insulin. The use of insulin permits of much more liberal diets but the food intake must be balanced with insulin administration and according to the ability of the body to utilize glucose.

9. Is insulin of value in diabetes complicated by ulcer or gangrene? It is very valuable but it will not arrest infection or cure gangrene. The necessity for prompt operation in severe infection and gangrene is as great as ever. More conservative surgery is possible and the prognosis is greatly improved. Before the use of insulin we had in our clinic:

Cases of gangrene with amputation, 28	
Recovery	11 or 40 per cent
Died	17 or 60 per cent

Since insulin we have had:

Cases of gangrene with operation, 14	
Recovery	12 or 86 per cent
Died	2 or 14 per cent

10. Is insulin of value in coma? It is a life saving measure in coma. We have admitted 20 cases in coma, 10 of whom have survived. Several of the fatal cases died because of insufficient insulin. Before administering insulin one should be sure the coma is that of diabetes. Every unconscious person with sugar in the urine may not be in coma. Fracture of the skull, brain tumor, cerebral hemorrhage, chemical poisoning and uremia may all simulate diabetic coma in the matter of stupor and glycosuria. Insulin in these states would be useless and probably harmful.

The discovery of insulin was a wonderful achievement. It reflects great credit on scientific medicine. Diabetic patients and physicians who are called upon to treat them, owe a debt of gratitude beyond measure to Dr. Frederick G. Banting.

THE RELATIVE IMMUNITY OF INFANTS UNDER FIVE MONTHS OF AGE TO INFECTION WITH MEASLES.*

By CHARLES HERRMAN, M.D.
NEW YORK CITY.

IT is a remarkable and noteworthy fact, that although newborn and young infants are very susceptible to some infections, they enjoy an immunity to others. Erysipelas, septic and respiratory infections are apt to run a rapid and unfavorable course, but to infection with measles and scarlet fever they are relatively immune. This relative immunity to measles during the first few months of life is especially remarkable and unique, for unlike other diseases, the susceptibility to infection with measles in later life is almost universal, so that practically every child is infected when exposed.

In a paper on measles published in 1914, I said, "Infants under five months are practically immune. This immunity I have frequently found to extend to the sixth or seventh month. I have notes of forty cases of infants under five months who did not contract the disease, although they came in very intimate contact with patients, such contact as occurs in the tenements, often lying in the same bed. Of these forty infants, thirty-two were breast-fed and eight artificially fed. As this also represents the usual ratio of breast-fed to artificially-fed at that age, there is apparently no great difference in susceptibility, and the immune bodies must be transmitted principally by way of the placental circulation, and not through the breast milk. If it was through the breast milk, it is difficult to understand why it should last only five months in infants who are nursed for a longer time." Since 1914 I have had an opportunity to observe additional cases; a summary of the entire number is given in the following table. It will be noted that infants under two months of age, whose mothers have had measles, are immune; that the immunity becomes less marked as they grow older, but that even at four to five months of age only 25 per cent are infected. From that time the relative immunity quickly diminishes, so that infants over nine months of age are as susceptible as older children. It will also be noted that artificially as well as breast-fed infants enjoy this immunity, with a slight difference in favor of the breast-fed infants.

This relative immunity during the first months of life also manifests itself in other ways, as I have shown in a previous paper. When young infants are infected with measles, the incubation period may be longer, the fever and constitu-

* Read at the Annual Meeting of the Medical Society of the State of New York, at New York City, May 23, 1923.

tional symptoms may be less marked, and the eruption, the catarrhal symptoms and buccal manifestations may be less distinct.

CASES OF MEASLES UNDER ONE YEAR OF AGE.

Months of Age	Number Exposed	Number Contracted	Per Cent Contracted	Number Breast-fed	Per Cent Breast-fed	Per Cent Breast-fed of Those Which Contracted
0-1	20	0	0	18	90	..
1-2	15	0	0	13	90	..
2-3	40	2	5	34	87	..
3-4	31	3	10	24	80	..
4-5	32	8	25	22	75	50
5-6	40	18	45	28	70	55
6-7	27	18	66	16	60	50
7-8	33	29	88	18	55	31
8-9	38	36	95	19	50	38
9-12	90	87	97	40	45	30

This immunity which young infants enjoy may be a natural immunity, inherent and due to a failure of the body cells to react to certain kinds of infectious material, just as some animals are not susceptible to infection with measles. The chief objection to such a purely cellular immunity would seem to lie in the fact that experience has shown that only infants whose mothers have had measles are immune. If the immunity is derived from the mother, there are two possible sources: through the placental circulation or through the breast milk.

If the immunity is transmitted through the placental circulation, it may be either an active immunity due to the passage of antigen from mother to fetus, or it may be a passive immunity due to the passage of antibodies from mother to child. The greater part of the experimental investigation would tend to show that the normal intact placenta does not allow the passage of antigen. Acute diseases which occur in the mother during pregnancy are seldom transmitted to the fetus. The normal placenta seems to act as a barrier, and prevents the passage of injurious substances. There are very few authentic cases in which infants were born with or showed a measles eruption during the first days of life. In the Färöe Islands in an epidemic which occurred in 1846, a number of pregnant women contracted measles. Thirty-six years later there was another epidemic. In this epidemic the surviving offspring of those pregnancies contracted measles the same as others, so that they had not been *actively* immunized.

In all probability the most important source of the immune bodies is the mother's blood. Such a passage of antibodies through the placental circulation has been demonstrated in the case of diphtheria. An examination of the blood of the umbilical cord, has shown the presence of anti-

toxin. In the Schick test we have another simple method of detecting the presence of antitoxin. There has been found a remarkable correspondence between the percentage of negative reactions in the mother and in the newborn. As the infants grow older the percentage of negative reactions diminishes.

It is interesting to note that during the first year of life, there is a fair correspondence between the per cent of susceptibles to diphtheria and to measles. About 15 per cent of newborns are susceptible to diphtheria as determined by the Schick test, because that per cent of the mothers are susceptible. On the other hand, none of the newborns are susceptible to measles, because in New York City practically every mother has had measles. At six months of age, about 60 per cent of the infants are susceptible to diphtheria and to measles, and the per cent increases from month to month, until at the end of the first year, it is over 90 per cent in both diseases.

From the successful inoculation experiments of Hektoen and others, we know that the blood of the patient with measles contains the infectious material. We also know that the blood of patients convalescing from measles contains antibodies, because susceptible individuals can be protected from infection by injecting them with such convalescent serum.

It has been shown that in some acute infectious diseases, notably typhoid fever, there is a tendency for the immune bodies to increase in the blood of the mother just before and just after labor, so that we should expect the blood of the newborn to be rich in such antibodies. Notwithstanding this fact, Nassau failed to protect susceptible infants against infection with measles by injecting the serum of the newborn. He injected five infants who had been exposed to measles, at the beginning of the period of incubation with 3 to 4 cc. of serum from newborn infants, but they developed the disease in just the same way as those not injected. It is possible, but not likely, that the mothers of the newborns had not had measles. Much more plausible as an explanation of the lack of successful immunization would be the very small amount of serum injected. There might be a sufficient amount of antibodies in the blood of the newborn to protect it against infection, but 3 or 4 cc. of the serum might not be sufficient to protect an older child. Adults who have had measles in childhood are not susceptible to infection when exposed to the disease, but their serum is much less effective in immunizing against the disease than that from convalescents.

A passive immunity acquired through the ingestion of breast milk is doubtful. As proof of such a transmission, the classical experiments of

Ehrlich is usually cited. He took two groups of pregnant mice. One group was immunized against ricin and abrin; the other group was not immunized. The young of the two groups were then exchanged, the young of the immunized mothers were put to the breast of the non-immunized mothers and soon lost their immunity to ricin and abrin. The young of the non-immunized mothers were put to the breast of the immunized mothers and were found to be immune against ricin and abrin during the nursing period. Two objections may be raised to the application of this evidence, first that what takes place in small animals does not necessarily take place in man, and because these substances were transmitted through breast milk, it does not necessarily follow that other antibodies are also so transmitted. It has been shown that in order that antibodies should be present in the breast milk a certain concentration in the blood is necessary, and the amount of such antibodies in the breast milk is much less than in the blood. If such immune bodies are present in any appreciable amount in the breast milk of mothers who have had measles, it is difficult to understand why this immunity should be present in artificially-fed infants, and why it should last for only five months in those infants who are nursed for a much longer time. We would have to assume that these antibodies diminished or disappeared from the milk after five months.

It has recently been demonstrated that the colostrum ingested by calves contains certain agglutinin carrying globulins. It has also been shown that the intestine of newborn infants is permeable to proteins, so that the possibility of the transmission of antibodies through breast milk must be admitted; but this permeability of the intestine is of such brief duration that it would hardly explain an immunity which persisted for five months.

In a paper recently published, Petényi endeavors to prove that colostrum and breast milk contain antibodies, which when injected into infants artificially-fed, protects them against infection with measles. He injected ten artificially-fed infants who had been exposed to infection with measles, with 5 to 10 cc. of breast milk. Of these four contracted measles, and six remained free. The ages of the six who did not contract measles were, three, five, eight, eight, ten, fifteen months. The first four must be excluded as infants of three and five months are naturally immune, and a certain percentage of those of eight months are also relatively immune. These results therefore would hardly justify his conclusion that "these observations prove that a substance is present in mothers' milk, which when given subcutaneously is able to prevent the development of measles in artificially-fed infants exposed to the disease." It is possible that the

injection of milk and other proteins may increase the resistance of infants to certain kinds of infection. It is not at all unlikely that breast-fed infants are somewhat more resistant to infection with measles than artificially-fed. My own observations as given in the table show this. However, this may be due to a general increased resistance, rather than a special resistance to one kind of infection.

CONCLUSIONS.

1. Infants under two months of age whose mothers have had measles are absolutely immune to infection with measles.
2. Infants under five months of age are relatively immune, and a certain number retain this relative immunity up to nine months of age.
3. After the ninth month they are as susceptible as older children, and practically all contract the disease on exposure.
4. Artificially as well as breast-fed infants enjoy this immunity, with a slight difference in favor of breast-fed infants.
5. The immune substances are probably chiefly conveyed to the fetus through the placental circulation.
6. There is no substantial evidence that any important part of the immunity is due to the ingestion of breast milk.

Discussion.

DR. B. RATNER, New York City: Dr. Herrman's paper is of great importance to the profession from both a scientific and practical standpoint as his observations show definitely an immunity to measles in the new-born and young infants under five months of age.

In investigating the literature on the transfer of immunity from mother to offspring one finds that certain workers believe the mechanism for this transfer is through the placenta; others, that this transfer of immune substances takes place through the breast milk and still others that both factors play their rôles. In 1912, Famulener was the first investigator to emphasize the importance of colostrum and from his work on goats he contends that colostrum plays the dominant rôle. Recently Theobald Smith and his co-workers at the Rockefeller Institute have shown the importance of colostrum to the new-born calf, by demonstrating that the globulins were transferred through this medium and that about 80 per cent of calves deprived of colostrum died within the first few days from a *B. Coli* septicemia.

Dr. Kuttner and I, working on the problem of the importance of colostrum to the human spe-

cies, showed that the discrepancies noted in the literature were due to the fact that the various animal species showed a difference in the histological structure of their placenta. Man and the rodents, in whom the placental and fetal bloods are separated by only a single layer of cells, have placental transmission; whereas the ruminants, that have many cell layers separating the maternal from the fetal circulation, show no placental transmission. It is evident therefore that one should not generalize too loosely from work done on one animal species to another.

We worked entirely with diphtheria antitoxin, and showed that antitoxin was transmitted from a Schick negative mother to her child through the placenta, and that colostrum and breast milk play no rôle in this transfer of antibodies.

Reasoning by analogy from our work on diphtheria to the problem of measles, it may be that every child born of a mother who has had measles will have a passive immunity to this disease, but it must be remembered; as in the case of a child born from a Schick positive mother who can contract diphtheria, so in measles the same situation probably holds true.

Dr. Herrman is to be congratulated on delving into so important a field in immunity and we hope that his work may stimulate other workers and lead to the eradication of measles as is so rapidly being done with diphtheria.

DR. ABRAHAM ZINGHER, New York City: I was very much interested in listening to this valuable paper of Dr. Herrman's. The transmission of maternal immunity to measles, which is transmitted through the placenta and is retained by the infants during their first 6 months of life, is a phenomenon closely analogous to what we see in the transmission of immunity to infants against diphtheria. Dr. Herrman suggested and carried out immunization of young infants by applying the nasal discharge from a case of measles to the mucous membrane of children 5-6 months of age. There is one serious drawback to this. Some of these children may develop a very mild form of measles and convey the infection to the older children, who could develop a more severe form of the disease. By giving these older children a combined form of immunization against measles—*i. e.*, by applying the virus containing mucus to their nasal mucous membrane, and at the same time, or preferably 24 hours later, giving them 10 c.c. of measles convalescent serum subcutaneously we shall be able to confer an active immunity in the older children also, without the danger of their developing the disease.

Some years ago I recommended the prophylactic use of serum from normal adults as a protective measure against poliomyelitis in young

children. I felt that the maternal transmission of immunity to certain diseases, like diphtheria, measles, scarlet fever and poliomyelitis, which the infants retain during the first six to nine months of life, strongly indicated that we could *re-establish* such an immunity by injecting the children with larger quantities, 60-120 c.c., of serum from one or both of their parents. Such a measure could be easily carried out and should be used during outbreaks of measles in institutions and epidemics of poliomyelitis in communities when convalescent serum is not available, and it is desired to protect the young children against these diseases.

DR. SIDNEY V. HAAS, New York City: Dr. Herrman has gone into the question so closely that it leaves very little scope for discussion. I should like, however, to call attention to a practical application of one of the facts brought forth by him, and that is the immunity of the infant under six months of age, whose mother at some time in her life had had measles. Not infrequently a case of measles occurring in a household, where there is a new born infant, is entirely disrupted, because this fact is not borne in mind. The infant often being sent out of the home, or at best maintained under most rigid quarantine, where such a procedure is quite unnecessary.

Dr. Herrman is to be congratulated upon the excellent work he has done upon this subject, and it is to be hoped that from these beginnings it may become possible in time to immunize against measles as is now being so splendidly done against diphtheria.

Dr. Herrman in closing: At the Riverside Hospital we have had the same experience which Dr. Zingher mentions, namely, that the adult patients with measles come from rural districts, and have been in New York only a short time. It is not necessary to isolate and identify the infectious material of measles in order to immunize. Vaccination against smallpox has been successful, although the causative organism is still unknown. My own method is to immunize infants by inoculation in the fifth month. By adopting in addition the simultaneous administration of convalescent serum with the inoculation, the method is applicable at any age. As Dr. Haas has stated there is no need of sending a newborn away from home when a case of measles occurs in a family. The unsuccessful inoculation experiments of Sellards on adults who claimed that they had never had measles, may possibly be explained by the fact that they had a mild, unrecognized attack before the eighth month of life, which was sufficient to render them immune in later life.

CONGENITAL DIAPHRAGMATIC HERNIA OF THE RIGHT SIDE; ITS DIAGNOSIS IN LIFE

By PHILIP MOEN STIMSON, M.D.

NEW YORK CITY.

INTRODUCTION. Hernias through the diaphragm can no longer be classed as rarities. As far back as 1911, Eppinger¹ tabulated 635 cases of diaphragmatic hernia of all types, collecting them from the medical literature of numerous countries. Of these cases, 580 were left-sided, and only 55 right-sided; that is, he found records of over ten hernias into the left chest for each hernia into the right chest. Four years later, a rather extensive classified review by Kienboeck² of the German literature alone up to 1915, revealed only three diaphragmatic hernias of all types and one eventration as having been diagnosed in life and confirmed at autopsy.

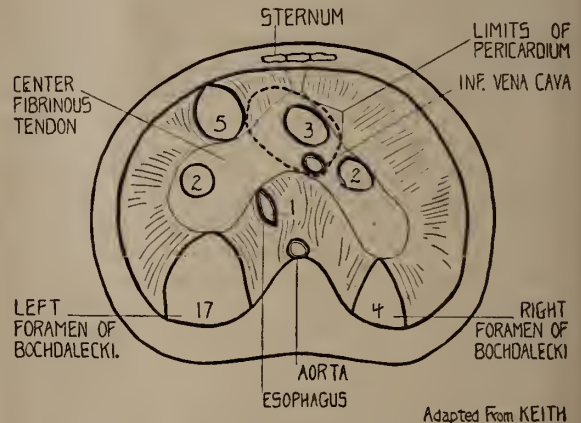
In recent years, however, the X-ray has allowed many cases of this interesting condition to be diagnosed before the patients reached the operating or autopsy tables, and many additions have been made to the knowledge of the subject. However, hernias through the right side of the diaphragm have continued rarities, and a fairly extensive search of the literature has revealed references to only four such cases that have been diagnosed in life. The opportunity to observe a fifth such case, the youngest of the group, has been the inspiration of the present paper.

ANATOMY. The diaphragm is a partition between the abdomen and the thoracic cavities, which is composed of three layers, an upper covering of pleura, a muscle layer, and a lower layer of peritoneum. The muscle layer is composed of contiguous groups of muscle fibres which radiate in from the chest wall to a central fibrinous tendon which is slightly greater in area on the left side than on the right. The groups of muscles are sometimes named, from their peripheral attachments, the pars vertebralis, the pars costalis, right and left, and the pars sternalis. There are two natural openings through the diaphragm; that of the esophagus through the muscle fibres slightly anterior and to the left of the spine; and that of the inferior vena cava through the tendinous part of the diaphragm about midway from sternum to spine and slightly to the right of the midline. The descending aorta passes down behind the diaphragm rather than through it.

In the embryo, the diaphragm largely originates in the neck in the septum transversum, the sternal or anterior part of which gives origin to the pars costalis and pars sternalis, while a dorsal part gives rise to the pars vertebralis. As the forming partition moves down across the future chest, pulling the phrenic nerve with

it, it allows the rudimentary lungs to pass through posterior openings between the pars vertebralis and the pars costalis on each side, and in the ordinary course of events, at about the end of the second month of gestation, these openings in the diaphragm, situated one on each side of the spine and sometimes called the foramina of Bochdalecki, close up, the one on the right side usually closing first. But even as in the internal abdominal rings, the internal openings of the tunica vaginalis may be delayed in closing or fail to close altogether, so here also in the diaphragm, defects may occur. On the right side, the liver growing in the septum transversum seems to guard to a considerable extent the right side of the diaphragm from developmental disturbances. Certainly, after birth, it protects weak spots in the diaphragm from giving way to sudden shocks which might cause herniation through similar spots in the left side where there is no protecting liver. Also, the formation of the left side is more complex than that of the right since it grows in close association with the left lobe of the liver, the stomach, the pericardial formation, one of the pulmonary ridges, and the pleuroperitoneal membrane. Accordingly, we can expect to find congenital diaphragmatic hernias occurring usually through the posterior parts of the diaphragm and particularly on the left side, and such seems to be the case.

In 1910, Keith³ reported an anatomic study of 34 specimens of diaphragmatic hernia then found in the medical museums of London. (Fig. 1.)



Adapted From KEITH

FIG. 1. Keith's diagram of a diaphragm showing the anatomical relationships, and the locations of the 34 hernias of his series.³

Seventeen, or one-half of the entire number, were through the unclosed left foramen of Bochdalecki, and four were through the right. There was one through the esophageal opening. In two infants, congenital hernias were found through the left part of the central tendon, while through the right part of the central tendon were two more hernias, but these latter were both of liver tissue

* Read at the Annual Meeting of the Medical Society of the State of New York, at New York City, May 23, 1923.

and due to abnormal development of liver in the septum transversum. Further anteriorly, there were three hernias into the pericardium, two in adults and possibly traumatic in origin; the other in an infant that died at birth. And finally, through the muscle tissue of the left anterior part of the diaphragm, there were five cases, all in adults and all probably traumatic in origin.

Inasmuch as this paper is primarily concerned with hernias through the right foramen of Bochdalecki, it is interesting to note that of Keith's four such cases, two had died at birth, one had lived one and a half hours, and one four hours.

Diaphragmatic hernias are acquired or congenital; true or false. Eppinger¹ regards as acquired only those in which there is a definite history of a traumatism (such as a fall, a crushing accident, a penetrating wound, and the like) and he classes all others as congenital. The latter arise through embryological defects of the diaphragm, such as arrested development of a portion as already mentioned, excessive size of the natural foramina, or weakness of a part of the muscle layer.

A true diaphragmatic hernia is one where there is a sac of peritoneum and pleura around the herniating viscus, the muscle layer only being deficient, whereas in cases of false hernia there is a complete defect of the three layers of the diaphragm, and the abdominal organs, without a sac, pass directly into the pleural cavity, pericardium, or mediastinum. Owing to the negative pressure within the chest and the positive abdominal pressure, we find the abdominal organs passing into the chest rather than the thoracic organs into the abdomen. An associated condition is known as insufficiency or eventration of the diaphragm, wherein there is a thinning and ballooning upward of an entire half of the diaphragm with symptoms and signs often similar to those of diaphragmatic hernia.

CASES. Of cases of diaphragmatic hernia through the right posterior portion of the diaphragm that were diagnosed in life, I have found reference in medical literature to four, and I have a fifth such case, the youngest of all, to report.

CASE I. In 1910, Dietlen and Knierim⁴ reported the diagnosis in life of a right posterior diaphragmatic hernia in a well-nourished 23 year old woman, mother of a healthy child, and pregnant a second time. Her symptoms of pain in the right chest had dated from her sixteenth year. Solid foods had given severe symptoms of distress, but fluids gave little or no pain. The pain, when present, was usually in the pit of the stomach, but sometimes radiated towards the right breast or was marked beneath the right shoulder blade. She had vomited some blood before admission to the hospital.

The first findings suggested a pleural exudate

but were not typical. A simple X-ray showed an arched line curving above the right side of the diaphragm (Fig. 2) and a subdiaphragmatic abscess was suspected, especially after an exploratory puncture yielded a cloudy, bright-yellow fluid containing numerous pus cells. Subsequent X-rays with bismuth revealed, however, as shown in their diagrams, that part of the stomach passed through the diaphragm.



FIG. 2. The "curved line" found by Dietlen and Knierim.⁴

The authors stated that since there were no reasons to consider the case traumatic in origin, it was probably developmental or congenital in type. They considered their case unique as no cases of right-sided diaphragmatic hernia, diagnosed in life, had been described up till then. Their paper makes no mention of the treatment or outcome of the case.

CASE II. In Holt's text-book, edition of 1917,⁵ are reproduced two x-ray plates which show the stomach in the right side of the chest of a child 16 months old, who later died of pneumonia at 3½ years.*

CASE III. In 1919, DeCourcy⁶ reported the case of a 25 year old girl who had given a history of at least eight years of constipation and indigestion, and of more recent severe epigastric pains immediately after meals. There had also been marked vomiting without premonition, the vomitus seeming to gush from the patient. It was also stated that there was smothering and shortness of breath at times, which is of especial note since similar respiratory symptoms are not recorded for any of the other patients of this little series. The diagnosis here was made by a prolonged fluoroscopy of a test meal, the stomach being found at first to be partly in the right chest, but in a half hour it was entirely in the abdomen.

The patient was operated upon, the stomach

* Further details of this case cannot be found. (Personal communication from Dr. Holt.)

pulled down, and a purse-string suture made around the diaphragmatic opening.

CASE IV. This case, a truly remarkable one, was reported in 1920 by Keith.⁷ A 17 year old boy gave a history beginning at 18 months (when he was very robust and weighed 25 pounds), of a prolonged attack of persistent vomiting and rapid loss of weight to seven or eight pounds in two months. Then there was freedom from symptoms for six months and a return to health, and subsequent similar ups and downs until the age of 17 was reached, the longest period without symptoms being two years.

In a fluoroscope, at first only the pyloric end of the stomach showed in the right side of the chest, but three weeks later the whole stomach seemed to be in the sac. Accordingly, the patient was operated upon, and the entire stomach was found in the right chest having passed through a lateral slit in the diaphragm, to the right of the spinal column. The opening was approximately $1\frac{1}{4}$ by $2\frac{1}{2}$ inches. The stomach was pulled out of the chest in this operation, and two weeks later the diaphragmatic opening was closed by the transthoracic route. Recovery was uneventful resulting in a complete cure. Subsequent fluoroscopy and X-ray plates showed no filling defects in the esophagus, stomach, or cap, but a moderate dilatation of the stomach and ptosis of about two inches.

CASE V. AUTHOR'S CASE—PRELIMINARY REPORT. Edwin F. was brought to the Cornell Pay Clinic on August 11, 1922, when exactly 11 months old, the complaints in his behalf being almost continuous vomiting since the third day of life and the resulting severe malnutrition. He was born September 11, 1921, of healthy parents, it having been his mother's first pregnancy. He was a full term, $9\frac{1}{2}$ pound baby, born without instruments and seeming to be perfectly formed and normal in every respect. There was no cyanosis nor notable difficulty in breathing the first day, nor has there been either since. He was nursed nearly two months but since he had vomited from two to all feedings a day after the third or fourth day, he was tried on condensed milk. This failing to help, he was taken to one of New York's noted specialists who found nothing abnormal at that time in a physical examination other than malnutrition, and put him on a malt soup mixture on which the boy gained quite well (Fig 3). He continued to vomit considerably but possibly not so much as formerly. Later, other doctors were consulted, and the baby was tried on buttermilk, whey, and various combinations of milk. Curiously enough, on each new feeding he usually did well for from four to seven days but then began vomiting frequently and quickly lost what weight he had gained. His bowels were almost always constipated except during the short period he was on condensed

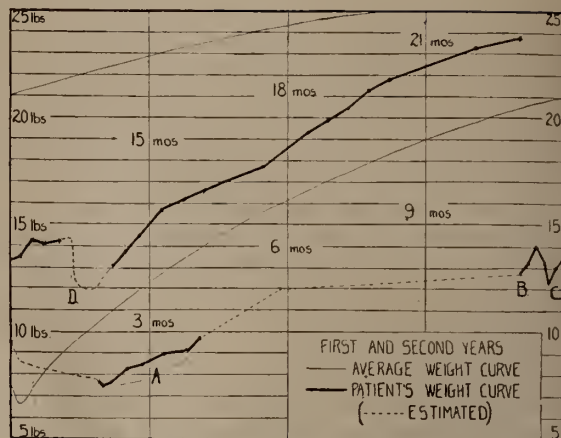


FIG. 3. Author's Case. Weight Curve.

- A. Section of curve reconstructed from outside records.
- B. When the patient was first seen.
- C. When the diagnosis was discovered.
- D. When the patient was taken to the hospital for four days.

milk, but his mother usually accomplished satisfactory results with milk of magnesia. He had had what was considered bronchitis in March, and also had been subject to boils on his forehead, especially when most upset. Otherwise, he had had no illnesses but seemed to be a definite case of marasmus when first seen at 11 months.

At this time, August 11, 1922, he weighed only 12 pounds, 13 ounces, and a routine physical examination revealed nothing abnormal except the marked malnutrition and the absence of teeth and of the ability to creep or stand. He cried violently most of the time. He was put on a thick cereal formula of skimmed milk boiled with farina and milk sugar on which he gained 12 ounces in 12 days during which period there was no vomiting at all. But then he began vomiting moderately so that he lost 4 ounces in seven days. At this point the vomiting became very severe, nothing whatever being retained, and he lost 16 ounces in the two days preceding September 1st.

Accordingly, that morning in the clinic, an attempt was made at 10:30 to wash out his stomach but no milk was obtained. He had been given a bottle at 10:00 and there had been profuse vomiting at 10:15. It was noticed that in passing the catheter down his esophagus, there seemed to be some difficulty in entering the stomach, and accordingly it was thought that there might be some obstruction at the cardia—at least a cardiospasm. A catheter full of a barium preparation was then passed and more barium introduced. It was observed that the barium was immediately vomited until the catheter end had seemed to pass the obstruction after which time the vomiting ceased. With the aid of Dr. H. H. Fellows, the child was then quickly fluoroscoped, and the stomach was found on the right side, apparently on a level

with the liver and possibly behind it. A sharp angulation at the cardia was made out with a little barium still in the lower end of the esophagus just above this constriction. Because of the child's exhausted condition, only a short examination could be made but X-ray prints were taken. These later proved unsatisfactory so that on September 5, four days later, the child being appreciably stronger, new X-ray prints were taken

with a catheter passed into the stomach and then filled with barium.

In these pictures (Figs. 4 and 5), the heart and liver were found apparently in their normal positions, and so also the pyloric and cardiac ends of the stomach. But the greater curvature of the stomach had been pulled over to the right and some of the wall had been sucked up into the right chest cavity. Six weeks later, on October 13, a fluoroscopic examination showed the entire stomach in the chest (Fig. 6), but there was apparently no obstruction to its emptying. In fact, it seemed to empty itself of the barium unusually rapidly and this was also noted in the previous examinations.



FIG. 4. Author's Case. The X-ray picture which gave the diagnosis. (See Fig. 5.)

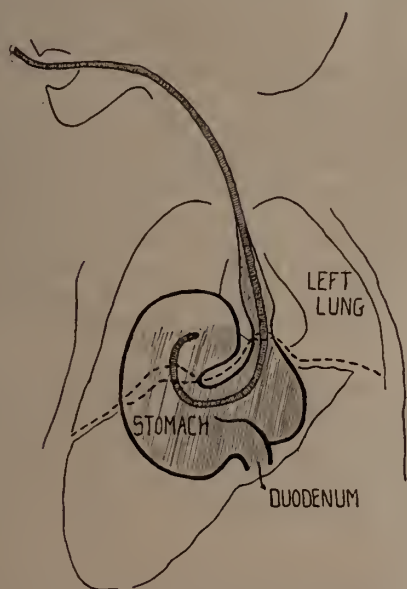


FIG. 5. Diagram for interpretation of Fig. 4. This interpretation was based on several films as well as on the fluoroscopic examinations.

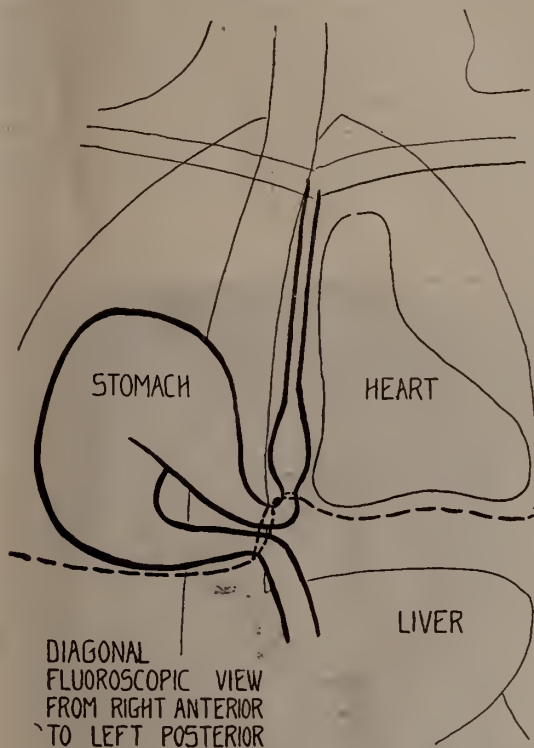


FIG. 6. Author's Case. Diagram showing the fluoroscopic findings of Oct. 13th and 24th. The diagonal view was made to outline the esophagus between the shadows of the heart and spine. The obstruction at the lower end of the esophagus appears clearly, as well as the position of the stomach in the right side of the chest.

By giving small feedings slowly and at frequent intervals, some progress in weight was made in September and October but on October 19 violent vomiting commenced, at first only of all food, but a day later of a brownish-black fluid considered digested blood by several doctors. On October 21, he was admitted to the New York Hospital with a temperature of 102.4° , which rose in two days to 106° , apparently due to a complicated bronchitis. The vomiting became less marked, and on the 24th he was fluoroscoped

by Dr. A. L. Holland who made the following notation: "The entire stomach is found above the diaphragm. The cardia seems constricted. The duodenum seems also within the chest and leaves in quite near the place where the cardia enters. The hernial opening is near the spine just to the right of it. No pyloric obstruction; apparent constriction at the cardia."

The child was shortly taken home from the hospital by the parents without an operation, and in November was brought back to the Cornell Clinic. At this time, the baby still weighed only 13 pounds, just what he had weighed in August. This day only was it first possible to note in any satisfactory manner the physical signs of the child's chest because usually he cried a great deal. There seemed to be some dullness at the right base posteriorly with diminished breath and voice sounds, and at the left base there was some hyperresonance. X-ray films of the chest were taken without barium, and showed the presence of gas above the liver in the right side of the chest. (Figs. 7 and 8.)



FIG. 7. Author's Case. Lateral view (without bismuth) showing gas shadows; above the liver; through the liver shadow; and also apparently at the normal site of the stomach.

Since this time there has been a steady and satisfactory gain in weight. (Fig. 3.) In No-



FIG. 8. Author's Case. An attempt to reproduce in this case the curved line described by Dietlen and Knierim. (See Fig. 2.)

vember and December he vomited occasionally but since then there has been practically no vomiting. The diet has been the usual one for the second year, viz. cooked cereals, green vegetables, potato, broths, milk, toast, and orange juice, with also a little cod-liver oil, but everything has been given very slowly and in small quantities at a time, and the child has been held at least semi-erect during the feedings. At first there were a number of small meals a day, but at 24 months the child has three good sized meals only, has 16 teeth, walks, says many words clearly, and weighs 25 pounds, 1 ounce.

At no time has there been any cyanosis or dyspnea, or other respiratory symptoms except during the two so-called attacks of bronchitis. Nor have any abnormal physical signs been made out at any time other than those already noted and the absence of marked gastric tympani under the left lower ribs, and even this usually seems present presumably due to a distended large intestine.

The present plan is to continue the expectant method of treatment until the little patient is four or five years old when, if he seems to be a fairly good surgical risk and if X-rays show the stomach is still in the right chest, operation may be urged.

SYMPTOMS. The usual symptoms described in cases of congenital diaphragmatic hernia are cyanosis, rapid respiration, a sunken abdomen, an over-distended chest, and dyspnea—all these appearing very soon after birth. In those who

survive longer, dyspnea is generally the most prominent symptom. It may be constant; it may occur in severe paroxysms, and there may be attacks of cyanosis often of great severity, these being produced by an accumulation of gas in the herniated hollow viscus. Davis⁸ has recently reported a case of left-sided diaphragmatic hernia in an infant that showed intense cyanosis when prone but very marked improvement when held erect. Her little patient did well for several months when held fastened to a board kept elevated at an angle of over 45 degrees.

In discussing 127 cases of diaphragmatic hernia of all types which he had assembled from the literature, Latta⁹ stated that in all cases in which death was the direct result of the diaphragmatic defect, cyanosis accompanied by extreme dyspnea, and vomiting were characteristic symptoms. Vomiting is usually spoken of as among the symptoms but apparently as secondary in importance to the respiratory symptoms, but Holt³ says that the symptoms may at times suggest intestinal obstruction.

In the little series of right-sided hernias described in this paper, it is interesting to note that respiratory symptoms were noted in only one of the four cases where there is information as to the symptoms. But in all four instances, marked persistent vomiting was present, profuse vomiting, often projectile, and repeated so frequently as profoundly to affect the nutrition. The two women also complained of severe pain, in the one case described as epigastric; in the other as radiating into the right breast or under the right shoulder blade.

PHYSICAL SIGNS. The physical signs elicited in cases of diaphragmatic hernia naturally depend upon the size and location of the hernia, and the nature of the herniating viscus. In cases where there are large hernias on the left side

there is usually evidence of considerable displacement of the heart to the right. (Fig. 9.) The physical signs over the lungs vary considerably. Sometimes those of a pneumothorax seem to be present. At other times fluid is suggested as in the case of Dietlin and Knierim which was actually aspirated and yellow fluid obtained.

When the stomach is herniated into the right side of the chest, as in the collected series of this paper, we may hope to find a layer of gastric tympani between the lung resonance and the area of liver dullness. Dietlin found these signs in his adult patient but in the infant reported in this paper, several examinations have failed to elicit these signs. The absence of gastric tympani from its normal site may be a helpful sign but this absence may be obscured by the presence of gas in a distended splenic flexure.

The fluoroscope, or X-ray plates taken after the administration of barium will of course clear up the diagnosis in most if not all of these cases. Even without barium the diagnosis can often be made with the X-ray. The line of the diaphragm may show a portion regular and a portion blurred with a gas shadow above. The hernial sac as a whole may be distinguishable as well as the fluid or gas contained therein. Dietlin and Knierim called attention to a curved line rising from the liver shadow about in the right nipple line and curving up and over into the shadow of the sternum. (Fig. 2.) In questionable cases, insufficiency or eventration of the diaphragm must be borne in mind with its markedly upward and yet symmetrical displacement of an entire half of the diaphragmatic arch together with the organs situated below that half. Here of course there is no loss of contour of the diaphragm nor do gas shadows appear above the liver shadow. A point usually strongly in favor of the diagnosis of hernia is made when lung tissue is seen through the shadow of the gas-filled stomach. Also evidences of gastrointestinal obstruction found often in hernias are not found in cases of insufficiency.

PROGNOSIS. However, diaphragmatic defects may exist for years without harm to the subject. Latta⁹ found that ten of the 127 cases he collected lived to adult life and one lived to the age of 70. In most of these adult patients, the diaphragmatic defect was unrelated to the cause of death, the subjects apparently suffering no inconvenience from the lack of a perfect diaphragm. Either the misplacement of the organs was not enough seriously to disturb the pulmonary and cardiac function, or the unaffected lung had been so able to function as to compensate for the loss of function of the other lung. It is also quite probable that many people with a small defect of the right side of the diaphragm go

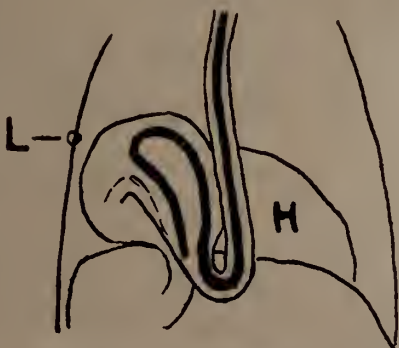


FIG. 9. From Hirsch¹⁰. Showing the heart (H) displaced far to the right. L. denotes the left nipple. This sketch affords an interesting comparison with Fig. 5.

through life symptomless due to the fact that the liver may protect the opening and thereby prevent the herniation of a hollow viscus. But even where the diaphragmatic defect is such as to permit herniation enough to cause distressing symptoms, the condition is not necessarily incompatible with life nor irremediable, although noted authors still write that "the condition is not amenable to treatment."

TREATMENT. Many reports of operative cure of left-sided diaphragmatic hernias are now to be found in recent literature. In the majority of cases, it has been possible to restore the organ or organs to the abdominal cavity and close the opening in the diaphragm. Keith⁷ cured his patient (No. 4 in our series) of a right-sided true hernia involving the stomach by operating through the chest from behind and tying off the hernial sac after first reducing the hernia in a preliminary operation via the abdominal route. DeCourcy⁶ approached a somewhat similar hernia (No. 3 in our series) from below the diaphragm in front, pulling down the herniating stomach and putting a purse-string suture around the diaphragmatic defect. Downes¹¹ found a seven year old boy whose entire stomach had passed through the esophageal opening in the diaphragm and rested on the left half of the diaphragm. Being unable readily to replace the stomach in the abdomen, he did a gastroenterostomy through the hernia opening and relieved the symptoms of vomiting which had lasted for over five years.

However, operations of this sort are very serious affairs, and the patient must be a pretty good surgical risk before a curative operation can be undertaken. Accordingly it is often necessary first to attempt to build up the patient by proper feeding methods and proper hygiene.

In this expectant treatment of cases of diaphragmatic hernia, particularly of the right side, there are several facts that must be borne in mind:

1. Crying tends to increase intrathoracic suction, and accordingly may increase the extent of the hernia.

2. The stomach is in an abnormal place and position and probably cannot hold as much at a time as when in the normal position. And particularly in right posterior hernias, there is apt to be a sharp angulation at the lower end of the esophagus which may cause definite obstruction with symptoms closely resembling those of cardiospasm. Hence, feeding with small quantities given very slowly and at frequent intervals seems to be indicated.

3. Where the hernia is large, keeping the patient in an erect or semi-erect position may great-

ly relieve the respiratory embarrassment which is marked when the patient is prone.

4. Should a severe respiratory crisis of extreme embarrassment to breathing occur, it may likely be due to an accumulation of gas in a herniating hollow viscus, a condition possibly relievable by the passing of a rubber tube.

And finally, it might be advisable in certain cases, immediately before doing a corrective operation on a case of diaphragmatic hernia, to do one or more artificial pneumothoraces on the affected side, primarily to adjust the heart to the shock that is incident to a chest operation, but also possibly to reduce somewhat the size of the hernia.

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COMMON DRUG ERUPTIONS*

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THE important subject of drug eruptions has been dealt with by many American and European dermatologists. Foremost among these is the book by Prince A. Morrow, published about 35 years ago in this country. More recent work in this field has been done by Apolant of Germany and by Brooke and Roberts of England; in this country articles have appeared by many observers, including Engman and Mook, C. J. White, Howard Fox, Wile, and Wise. I will endeavor to add only a few salient features which might be applied to drug eruptions at this time considering the eruptions due to some of the newer medicaments, such as phenolphthalein and luminal. In order to facilitate this, I will show lantern slides of cases photographed in the service of Professor John A. Fordyce of Columbia University.

Drug eruptions embrace all congestive and inflammatory changes in the skin caused by the internal use of drugs, and by the absorption from the mucous membranes, the skin or cellular tissue. Every possible lesion of the skin—erythema, macules, papules, wheals, nodules, vesicles, bullæ, pustules, furuncles, ulcerations, gangrene, etc.—has been observed as the direct result of the ingestion of drugs.

The length of time which intervenes between the ingestion of the drug and the first appearance of the eruption varies according to the predisposition of the individual, the nature of the drug, and the amount assimilated. In general it may be said that certain forms of eruption, especially the exudative and erythematous, appear rapidly after the ingestion of the drug, i.e., from a few minutes to several hours, and disappear just as quickly if the specific drug be discontinued. In other cases, it may require repeated and long-continued ingestion to develop the skin eruption and, on the contrary, minute doses of drug, too small to have a physiologic effect, will produce violent and extensive tegumentary disturbances quite promptly. Also, it is peculiar that, at times, large doses of the same drug in the same susceptible individual may be taken without effect on the skin.

In the majority of cases, the quantity of drug ingested is immaterial, its effects on the skin being determined rather by the idiosyncrasy or susceptibility of the person. But there are common and typical eruptions, such as bromic and iodic acne, in which there is a measurable relationship between the quantity of the drug taken and the severity of the lesions. The eruptions caused by the internal use of many drugs is characteristic: for instance, the eruption of belladonna is scarlatinoid; that of antipyrine, measily; that of

bromides and iodides, papulo-pustular. But they may present an entirely different and atypical picture. The eruptions may be localized or generalized. Some drugs have a predilection for certain areas. The course of the eruptions varies: some remain stationary in spite of the persistence of drug ingestion, others become intensified in extent and severity and new eruptive features may present themselves. For instance, a bromide eruption at times may remain unchanged for months. One attack of a drug eruption seems to increase the susceptibility of future attacks even though it required long and continued ingestion of the drug to cause the first outbreak. The duration of the eruption varies: it may persist for months and even years after the ingestion of one dose of the exciting agent, such as often occurs in the newer eruptions which we are more frequently seeing, i.e., the phenolphthalein rashes first described by Wise and Abramowitz. However, most drug eruptions disappear quickly (days or weeks) after the use of the drug has been suspended. The subjective symptoms may be unnoticeable or they may be marked, such as violent pruritis and burning,—also, constitutional symptoms such as fever, headache, and general malaise may accompany some eruptions. Cases are on record in which death has ensued from the constitutional reactions coincident with drug eruptions, such as the reaction following salvarsan injections.



ERUPTION DUE TO INGESTION OF PHENOLPHTHALEIN

* Read at the Clinical Conference of the Mary Immaculate Hospital, Jamaica, L. I., January 31, 1923.

The susceptibility of certain individuals to a drug eruption is not understood. Neither is it understood why the same individual at other times is not susceptible to the drug eruption. The etiology in general of drug eruptions can be laid at the door of "idiosyncrasy." But why the idiosyncrasy is an unexplained question. The same eruptive form may be produced by different drugs and the same drug may produce a variety of eruptive forms. The theory that is held by some dermatologists is that a large proportion of these eruptions are caused by the elimination of the drugs through the skin, i.e., the result of a direct local irritation. This has not been proven. Certain observers in reporting microscopical examinations of "iodine acne," showed no involvement of the sebaceous glands and hair follicles. Also these lesions occur in scars where sebaceous glands are not present. Another theory is the neurotic origin of drug eruptions, which recognizes the skin lesions as due to disorders of innervation following the drug (pure or compound) circulating through the body in the blood. The latter idea is most plausible as shown by wheals (urticarial) and angioneurotic phenomena following the absorption of drugs, i.e., antipyrin, arsenic, chloral, copaiba, digitalis, hyoscyamus, opium, morphia, quinine, stramonium, salicylic acid, bromide or potassium, etc. Here there seems to be a specific action of the drugs in question upon the vasomotor system.

DIAGNOSIS.

Drug eruptions derive their clinical importance from their resemblance at times to the eruptive fevers and "idiopathic" skin diseases. The exanthems of quinine and belladonna often resemble the scarlatina rash, and *if accompanied by fever, it is almost impossible to differentiate them on first examination.* A copaiba rash may look like measles, and an iodide rash may simulate both small-pox and syphilis. A phenolphthalein eruption may look like erythema multiforme and was diagnosed erythema perstans by all up until the last few years. Microscopically this latter (phenolphthalein rash) gives the picture of a mild erythema multiforme.

Drug eruptions usually appear suddenly and usually disappear when the drug is discontinued. Often the drug is found in the secretions, i.e., urine, sweat, and saliva. However, in many cases, the clinical features of drug eruptions have nothing distinctive, nothing definite, nothing fixed.

IODINE—IODIDES.

The eruptions caused by the ingestion of potassium iodide hold good for all other iodine preparations. Iodine rashes may be divided into six different forms: the erythematous, the urticarial, the nodulopustular, the eczematous, the petechial, and the bullous.

Erythematous form.—This usually occurs on

the forearms, face, and anterior part of the chest. The redness may be diffuse, or appear in discrete and irregular spots or in large circumscribed patches.

Urticarial form.—It may start as an erythematous rash, and later form the urticarial wheals and papules.

Vesicular form.—This may develop from the erythematous form, i.e., starting as a scarlatinal eruption, later developing into many minute vesicles and small pustules. This type is often accompanied by fever.

Bullous form.—This form is much less frequent than the other types. It generally starts as a vesicular-pustular eruption which lesions combine to form bullae. If the drug is continued, the bullae become large and break down to form ulcers. The bullae may vary in size from a pea to a pigeon's egg.

The papulo-pustular form is the most common and typical rash of the iodides. It presents certain analogies with the acneiform eruption, produced by the bromides. It most often appears where the sebaceous glands are abundant, as on the face, back, chest, and shoulders, but it may occur on all parts of the skin. The eruption usually starts as hard small papules, which when fully developed, enlarge and form pustules. These pustules have an erythematous, somewhat infiltrated base. These pustules suppurate wholly or partially.

Here it may be said that iodide eruptions are common in infants nursed by mothers taking iodide of potassium. Carbuncular lesions may occur which have a reddish coppery hue, flabby, almost fungous and presenting at times vacuoles analogous to those of the anthracoid furuncle. A hemorrhagic purpura may occur which disappears quickly if the medicine be discontinued.

Nodules similar to those of erythema nodosum occasionally follow very small doses of iodides and the same may be said where combinations of all types of lesions have presented themselves in one patient. Any of the iodide rashes may be accompanied by a high temperature. These eruptions usually promptly disappear after the use of the drug is suspended.

Strychnia and Nux Vomica occasionally cause a pruritic miliary erythematous eruption.

Opium and Morphia both produce eruptions which are intensely pruritic. Itching may be present without any rash, or scarlatiniform eruptions may occur with edema of the face and eyelids. Desquamation usually follows the disappearance of the rash. Hypodermic injections of morphia are frequently followed by inflammation and dermic abscesses, which may give rise to indolent ulcers persisting for a long time without showing a disposition to heal.

Phenacetin may cause a generalized erythema with rise of temperature which promptly disap-

pears on discontinuance of this coal tar derivative.

Sulphonal may produce a diffuse scarlet rash with intense itching. This eruption fades slowly and ends with desquamation.

Turpentine and Terebene may produce erythematous papular eruptions intensely pruritic and painful. This irritation often persists after the drug is stopped.

Veronal and Medinal (diethyl-barbituric acid and diethyl-barbituric acid sodium) may produce scarlatiniform and morbilliform eruptions accompanied by fever. Also severer forms with blebs, erosions of the arms and mouth, and pharyngeal mucosa occasionally occur.

Luminal (phenyl-ethyl-barbituric acid).—From luminal ingestion, urticarial, scarlatiniform, or morbilliform eruptions occur which may or may not be accompanied by fever. Fever and hyperemia of the mucous membranes are occasionally associated with any of the above symptoms. Lingual and oral erosions with bullæ on these sites have been reported. Phenolphthalein and antipyrin simulate the luminal mouth lesions.

Pyramidon, Atophan, and Urotropin often produce angio-neurotic phenomena such as swelling of the lips and eyelids, with intense itching and urticaria.

Phenolphthalein, as pointed out by Wise and Abramowitz, causes a peculiar eruption of the skin. This is important considering the fact that hundreds of proprietary cathartics contain phenolphthalein as the essential ingredient for the production of the purgative action. It is found in Ex-Lax, Phenolax, Partola, Alophen, Laxophen, Phenalin, Prunoids, Phenolphthalein Agar, Zam Zam, Rexall Orderlies, and many others. This drug produces a polychromatic skin rash similar to erythema multiforme, and clinically, it is a persistent erythema. In addition, it often is accompanied by vesicular, bullous and eroded lesions on the mucosæ and genitals. The common and most typical eruption, however, is a macular-erythematous rash varying in size from a pea to many inches, and in color, from bright red and violaceous to dark brown, which pigmentation frequently remains for months or years after the discontinuance of the medicine.

Sodium Benzoate and Benzoic Acid.—This often causes an erythematous papular eruption which may be discrete and in places confluent. It can come from the vapor compound tincture of benzoin being inhaled as it is used frequently. The rash is pruritic and quite transitory.

Salicylic Acid, Sodium Salicylate, Aspirin, and all the proprietary drugs containing salicylic acid and its derivatives.—Various eruptive forms may follow the ingestion of any of the above—erythematous, urticarial, vesicular, and petechial rashes. At times it closely resembles a scarlatina exanthem. They may cause angio-neurotic edema in

any part of the body or distinct urticarial wheals. In other cases, the picture of measles follows the use of salicylic acid internally, which disappears promptly when the drug is discontinued. Many cases are on record of an exfoliating dermatitis following aspirin. Also, pemphigoid and purpuric eruptions have been described. The erythematous eruption produced by salicylic acid and its salts bears a striking resemblance to that of antipyrin, belladonna, and chloral. Experiments upon animals have shown that the salicylates act primarily and principally upon the vasomotor centers.

Antimony (Antimonii et Potasii Tartras, Tartar Emetic).—Urticarial and pustular eruptions may follow antimony ingestion.

Antipyrin (Analgesin).—The eruption is usually erythematous in character. It consists of pea to larger red patches discrete or confluent resembling the exanthem of rubeola (measles). It is often accompanied by profuse sweating and moderate or mild itching. The sites of predilection are the chest, abdomen, and back, but it does occur on the extremities. The face is usually free. The eruption may follow a single dose of the drug, but most frequently follows several doses. It begins to subside promptly on discontinuance of the drug. Purpuric skin eruptions may occur following antipyrin. In the measles-like eruptions of antipyrin there are healthy areas of skin in between the patches. The rash, if on the extremities, is always bilateral.

Silver Nitrate and other Silver Preparations. Argyria following silver ingestion is well known by all medical men and is important due to its close resemblance to Addison's disease. Argyria is caused by a deposition of granules of metal in the tissues, i.e., skin layers.

Arsenicum.—Absorption may occur by ingestion, injection, handling of wall-paper and artificial flowers, and in dyes containing arsenic. Perhaps no drug in the materia medica exerts a more marked influence upon the nutrition of the skin than does arsenic. The skin eruptions following the absorption of arsenic by the various routes may be petechial, papular, urticarial, erysipelatos, pustular, erythematous, scarlatiniform, and even a generalized exfoliating dermatitis or a keratosis may follow. This applies to all the forms of arsenic, as Fowlers' Solution, arsenious acid, salvarsan, arsenite of soda, Asiatic pills, etc. The arsenical keratoses or warty-like indurations which usually come on the palms and soles sometimes develop into epitheliomata.

Papular form.—The papular form occurs as pin-head sized papules in scattered groups, which unite later to form larger patches, occasionally disseminated patches, which often resemble a papular syphiloderm, although of a less coppery hue. The parts affected by preference are the face, neck, hands, and genital organs. The hands

and feet may become intensely swollen following a few ten minim doses of Fowlers' Solution. A papular eruption closely resembling lichen planus may follow ingestion of any of the arsenic compounds, and of late McCafferty and others have described a lichen planus following salvarsan injections. The papular eruptions of arsenic are usually intensely pruritic. Urticarial wheals, intensely pruritic and differing in no way from the ordinary urticaria, often follow arsenic or salvarsan. A petechial papulo-vesicular or wheal-like rash often appears in a few days following arsenic absorption. Also, different forms of herpes, including herpes zoster, have presented themselves after a few doses of arsenic. There is a patient now visiting the Vanderbilt Clinic who has herpes gangrenosa of the right side of the forehead which appeared during a course of salvarsan treatment. This eruption may be coincidental, but it is probably due to the salvarsan. Hutchinson reports a number of cases, fifteen or sixteen, in which herpes zoster occurred during arsenic treatment of patients. Orfila and Gourbeyre each reported an eruption of pustules on the face, shoulders, arms and chest. Carbuncles and boils may occur during a course of arsenic treatment. Greyish and brownish pigmentations are liable to occur on various parts of the body following prolonged use of arsenic. What has been said of arsenic holds good for the salvarsans, for arsenic may cause all the constitutional reactions such as fever, itching, stomatitis, etc., that at times follow the salvarsans. Any of the arsenic compounds may produce a conjunctivitis, swelling and denudation of the tongue and buccal mucosa.

Belladonna-Atropine.—Diffuse erythema of face, neck, and extremities, sometimes with marked edema, may follow minute physiological doses. Its evanescent character is a marked feature. At other times, the belladonna rash is scarlatiniform in character and sometimes simulates scarlatina with alarming accuracy, especially when associated with congestive symptoms of the throat and fauces.

Bromides of Potassium, Sodium, Lithium, and Ammonium.—All the bromides produce similar eruptions. Bromide acne occurs in a large percentage of individuals taking bromides over a long period. The term bromic acne has been used to designate a variety of anatomical forms, some of which are in no way connected with disorders of the sebaceous glands. The bromide eruptions have a remarkably close resemblance to those produced by iodine preparations. The essential lesion in both is a dermatitis with a special localization about the sebaceous apparatus. The primary lesions in both may take the form of maculo-papules, papules, papulo-vesicles, papulo-pustules, tubercles, tuberculo-pustules, vesicles, and bullæ. There is a tendency to the formation of conglomerate lesions. Also, secondary crust-

ing, papillomatous overgrowth and ulceration may occur. Bromide eruptions tend to be more indolent and tardy and rarely are bullous. They often occur on the lower extremities. Bromide acne resembles closely acne vulgaris, i.e., papules, tubercles, and pustules being present, especially on the face and hairy regions, as the scalp, hairy portions of the thighs and legs. It occurs at any age. The majority of acne papules or pustules are pierced by a hair. On disappearing, they often leave small scars. A furunculoid eruption may follow bromide ingestion. These boils are small in size and without a core. Ulcerations on the leg lesions occur frequently. Verrucous lesions may occur which resemble common warts.

Diagnosis.—In the maculo-pustular form, its brownish-red or copper tint might suggest syphilis. It is more liable to be mistaken for acne vulgaris, from which it may be differentiated by the absence of comedones, its development at periods of life unusual for acne, and on parts of body where acne does not occur.

Chloral causes transient erythema, especially of the face, with no subjective symptoms.

Quinine.—The eruptions which follow the ingestion of quinine are multiform in character. The prevailing type of quinine exanthem is erythematous, but every form of elementary lesion—malcules, papules, wheals, vesicles, bullæ, pustules, exfoliating dermatitis, etc.—has been observed as the direct result of the administration of this drug. The erythematous form resembles a scarlatina rash in some cases, and in others a measles. Desquamation usually follows the disappearance of the eruption. The urticarial form may present itself, with typical urticarial wheals, edema, and puffiness of the face. The quinine exanthem derives its chief clinical importance from its close resemblance to the rash of scarlatina and erysipelas.

The ingestion of *digitalis* may cause an erythematous, erythemato-papular, or urticarial eruption.

Mercury ingestion may cause an erythemato-vesicular rash and even a marked exfoliating dermatitis. Almost every form of eruptive disturbance has been recorded as occurring from the absorption of mercury—urticaria, herpes, impetigo, purpura, furuncles, with ulcerative lesions with loss of much tissue.

In conclusion, any drug absorbed may give almost any possible lesion from a simple erythema to marked edema, ulcerations and even gangrene. The newer drugs, such as luminal, phenolphthalein, and salvarsan, on account of their wide usage today, are producing many skin eruptions which have a typical picture.

I wish to extend my thanks to Professor Fordyce for the courtesy of permitting the use of the lantern slides of photographs taken from his patients at the Vanderbilt Clinic.

THE PERIODIC EXAMINATION OF WELL CHILDREN*

By RICHARD M. SMITH, M.D.

BOSTON, MASS.

THE widespread interest in health is one of the most significant developments of the present day. Medical literature contains many discussions of the attitude which the medical profession should take toward this awakening interest. Not a little of the discussion is critical and there is an inclination among certain physicians to feel that groups in the community not trained in medicine are infringing upon the field of medical practice. Hand in hand with this critical attitude there is an insistent plea from other members of the profession that the responsibility for maintaining the health of the well is as great as the responsibility for the care of the sick. It is emphasized that this responsibility is especially urgent in relation to children. It seems to me that there are two quite distinct factors involved which are frequently confused in these discussions. It is essential for us to determine whether or not as a profession we believe that it is important to provide means for keeping children well, in addition to taking care of children when they are sick. If we agree that it is important to keep children well and to protect them from disease, the discussion then centers entirely upon the method by which this promotion of health shall be accomplished. Concerning the first question, i. e., whether as physicians we should concern ourselves with the health of children, it seems to me that there can be no difference of opinion. It has been shown in the examination of many groups of children that a considerable number from infancy through adolescence present physical defects and mental handicaps of a nature, which had they been considered earlier, could have been prevented or materially modified. These defects and mental handicaps act as a real and permanent embarrassment to normal living. This was well demonstrated by the large number of refusals in the draft of men at the period of life when the best health obtains. These men showed defects sufficiently serious to prevent their entering military service. If we study the nature of these defects we shall see that in general they were of the same type as those found among children of pre-school and school age. The latest and most complete statistics bearing out this statement are those found in the report of the Children's Bureau of the examination of pre-school children in Gary, Indiana. The desirability of promoting the health of children and of preventing the development of physical defects and mental handicaps seems to me so obvious that it

is unnecessary to discuss it further. The important matter for us to consider is by what means are we to accomplish the thing which all of us believe must be done for the health of children.

In the first place, I believe that if we are to establish a method which shall have universal application and which shall have a permanent basis, that method must be related to the other medical work in the community, i. e., it must become a part of the practice of medicine. This means that the medical profession as a whole must assume the responsibility for promoting the health of children. It is true that this will necessitate certain readjustments in medical practice, but these readjustments must take place. In order that physicians may be able to meet this new opportunity for service it will be necessary to modify the courses in the medical schools. Heretofore the instruction has been confined almost exclusively to the diagnosis and treatment of pathological conditions. Very few students upon graduation have adequate knowledge of the normal processes of childhood. This omission must be corrected. For those physicians who have already graduated and whose training was deficient in relation to the care of normal children post-graduate courses must be provided. The need for health supervision of children is so clearly recognized by the public that unless physicians are trained in this particular, other groups in the community will take over the work. A marked disruption of medical practice will result. Physicians must acquire a new point of view toward their patients. The specific information necessary to take care of well children can be easily acquired if we have the right attitude of mind.

The first and most important thing to be done to promote the health of children is to see that they are brought regularly to a physician for examination and advice. In my own experience I find it is very difficult to conduct these periodic examinations as a part of a visit upon a child who is sick. I believe that we should so far as possible encourage the practice among our patients of bringing their children to us for these examinations when the children are well. This should be at a time when we can give quiet, uninterrupted thought to the question of health. The mother has a much freer mind when the child is well to consider and comprehend the advice which we give than when she is anxious because her child is sick. The examinations should be made at least twice a year and a careful record made of all physical findings. It is unnecessary to say that this examination should be complete and that all the clothes should be removed. The measuring of the height and weight should be a part of the examination. It is to be remembered that we are looking not only

*Read at the Annual Meeting of the Medical Society of the State of New York, New York City, May 22, 1923.

for evidences of disease, but that we are anxious to discover whether or not there is any departure from normal development. This examination is the basis for our judgment of the child's condition and for whatever advice we may give the mother concerning diet and other matters.

There are certain definite things which we should have in mind at the time of each examination.

1. Is the physical development of the child normal? This includes a consideration of the growth of the body in height and weight, the state of nutrition, the condition of the bones and teeth and posture or bodily mechanics.

The tables used as standards of the height and weight of children are open to many criticisms. They are most of them smoothed curves which eliminate the variations of individual children. They do not take into account the fact that growth does not occur with equal rapidity at all times of the year. The known differences between the various racial and economic groups are not considered. The relation which the individual child bears to other children of the same age and group is of some interest, but of less importance than the record of his own progress. Each child should be measured against his own standard. Porter's studies of children in the Boston schools furnish the most valuable basis for comparative measurements. His conclusion that if we take care of the inches, the pounds will take care of themselves is a sound dictum upon which we may proceed.

Quite as important as the question of height and weight are the other evidences of good nutrition. The muscles should be firm, hard and well developed. The color of the mucous membranes should be normal, the skin clear, and subcutaneous tissues of proper texture. The general appearance as shown in eyes and actions should be one of health. If any developmental defect or retardation is present such action should be taken as is indicated by the condition which is found. For instance, in boys it is not at all unusual to discover an undescended testicle sometimes requiring operation for fixation in the scrotum.

Rickets results in various bony deformities, most of which, if not too serious, disappear after a few years. Bow legs and knock knees, however, frequently persist. These may require some treatment—most often accomplished by adjustment of shoes.

Round shoulders, lordosis and a pendulous abdomen are evidences of faulty posture giving rise to bad bodily mechanics. The proper use of the body in sitting and walking can be taught by means of precept—sometimes combined with exercises and rarely with supporting apparatus.

The condition of the teeth is one of the measures of the quality of nutrition during the time

of enamel formation. For the first teeth the enamel formation begins in intrauterine life and for the second teeth during the pre-school age period. To prevent caries it is more important to secure good nutrition than to do any other thing. If the diet and hygiene are correct, the teeth will usually erupt in proper position so that approximation of the upper and lower jaw is perfect. When, however, the teeth are irregular or the two jaws are not properly related, attention must be given to corrective measures. If this is undertaken early, it is possible by exercises to accomplish satisfactory results with the use of little or no apparatus. Children should begin early, by the second year, to go regularly to the dentist for cleaning the teeth and for the detection and treatment of caries, if it exists.

2. Is there evidence of incipient or early disease or an imperfection in any part of the body? This includes especially eyes, ears, nose, throat, lungs and heart.

The examination of the eyes and ears except for gross errors requires special experience, and whenever possible should be done by specialists in these branches of medicine. It is our duty, however, to be sure that these examinations are made. Obstructed nasal breathing is one of the definite deterrents to normal growth and one of the conditions associated most frequently with retarded development. In children this is usually caused by enlarged adenoids. When enlarged adenoids are present they should be removed no matter what the age of the child. If they grow again, they should be removed a second time. Disease of the tonsils is also so closely concerned with nutrition and health that if a child under six years of age has repeated attacks of tonsillitis or if an infection of the tonsils remains in a subacute stage, as it frequently does, the tonsils should be removed. The evidences of subacute infection are irregular surface of the tonsils with deep crypts containing exudate or injected vessels or constant redness of the anterior pillars, or enlarged anterior cervical glands. In children over six years of age the indications for removal of the tonsils need be much less definite than those I have given for the younger children. If these older children have tonsils which on examination give promise of future infections, I believe that as a preventive measure they should be removed.

3. It is our responsibility to see that everybody is vaccinated against smallpox. Also we have passed beyond the stage of experimentation in the control of diphtheria. Every child under our care should be immunized against diphtheria by the administration of toxin-antitoxin. The common practice of giving inoculations without the preliminary Schick Test to children under five years of age seems to me right. As further scientific research demonstrates means of pro-

ducing immunity to other diseases, we should be ready to adopt them. At the present time the two measures mentioned are the only ones which are sufficiently established so that we ought to give them universal application.

4. We should outline for the child a satisfactory daily routine and give directions for personal hygiene. This involves the prescribing of the right diet, modified according to the age of the child. It is essential in this connection to insist upon proper eating habits—appetite, regularity, eating food as served and many other matters of this nature. Adequate daily bowel movements must be secured. The requisite number of hours of sleep at night with a daily mid-day nap up to the sixth year must be provided. The school curriculum and the outside appointments must be systematized. Fatigue must be eliminated, except a wholesome physical weariness following outdoor exercise. We must see that a reasonable balance is established between work and play and that so far as possible the causes of nervous excitement are eliminated. All these matters of details in the child's day are important factors in maintaining his health. The care of the child's body, bathing, fresh air and exercise need to be directed from definite medical knowledge and experience.

5. We should ask ourselves concerning each one of the children coming to us for examination—is he forming healthy habits of mind or is he developing traits of character which will later become true psychiatric reactions? We know that the first five or six years is the most important period for mental growth and during that time we should endeavor, so far as we are able, to direct the expanding mental life of the child into healthy channels. Many of our efforts will be unsuccessful because of the unfavorable parental environment, but much can be accomplished by careful and painstaking consideration of this aspect of child health.

I have indicated why I believe every well child should receive a periodic examination by a physician, and I have enumerated a few of the most important matters which should be considered at the time of this examination. If the practice thus outlined could be put into universal application, I believe we should do much to promote the health of children and make a real step forward in medical practice.

A PRELIMINARY REPORT OF THE OCCURRENCE OF GONOCOCCIC VAGINITIS IN THE NEW BORN.*

By EDWARD J. WYNKOOP, M.D.,
SYRACUSE.

SOMEWHAT over a year ago, the Children's Wards in the Syracuse Memorial Hospital experienced an epidemic of Gonococcic Vulvo-Vaginitis. While attempting to ascertain the cause of this epidemic, it was thought wise to find out, if possible, how frequently new-born babies were infected with this disease. The co-operation of the obstetrical service in charge of Drs. Jones and Schoeneck, and the laboratory in charge of Dr. Groat, was obtained and an investigation started.

It was deemed wise to take smears from the new-born babies directly after birth, and on the 4th day and again on the 13th day at which time the infant usually left the hospital. Smears were taken from the vestibulum vaginae. The possibility of maternal infection should be indicated if a smear was positive when taken on the first day. On the 4th day would indicate the possibility of the infection developing in the infant, and on the 13th or 14th to make sure that no infection existed when the child left the hospital.

The following is a brief summary of the cases examined:—

Number of cases 163

Days smears were taken; 1st, 4th and 13th.

Number showing pus first day..... 1

Number showing pus fourth day..... 5

Number showing pus on repeat smear.... 1
on second repeat, none

Number showing no pus on repeat smear.. 4

Number showing pus on 13th day 15

Organisms seen in pus—Large round diplococci—cocci bacteria (probably staph.); Diplococci resembling g.c. morphologically but not c stains.

Of pus cases:—10 were normal, 1 breech, 1 bag case, 7 forceps.

In series of 163 cases there were:—51 forceps, 4 versions, 3 caesarean sections, 2 bag cases, 2 breech presentations, 103 vertex or normal cases.

No cases of g.c. Vaginitis were proven.

In smear work, 3 cases of g.c. Ophthalmia were found on the first day.

This report is simply a preliminary one of this work that is being done at the Syracuse Memorial Hospital, and another report will be presented at the end of the year.

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THE LORD HELPS THEM WHO HELP THEMSELVES

"The Lord helps them who help themselves" runs an old adage, never truer than in its application to the members of our profession. May we add that the Lord also helps those who help one another.

Individualism dominates associationalism so completely that coordination of elemental forces is employed only when panic inspired by defeat is imminent.

Detachment from political interest is discreditable to every individual in our profession. Given the distinction of the most thorough education possessed by any class, the fact that leadership is thrown aside is evidence of feeble stewardship.

Possessing the advantage of the sympathetic interest of a wise and envisioned Governor, and encouraged by him to attempt the realization of the highest ideals of public health regulation, our measures "were howled down" in the Assembly last spring, because we had failed to select legislators with mental or moral vision clean enough to see the great value to the State of a strong medical practice act.

The majority of our members are sleeping members, comfortable under the official protection of the organization, quite indifferent to the future, and doing nothing to improve a present situation. The hardest work they are capable of is needed in every Assembly District at this election. Every physician should exercise the privilege and duty of citizenship by employing every influence he possesses to elect men to the next Legislature, regardless of party label, who promise to stand for the things the medical profession believe are right.

The JOURNAL will help by inaugurating a department of "Legislation and Law," which will be carried on by Dr. James N. Vander Veer and George W. Whiteside, Esq. Legislative matters will appear in every issue, and current legal problems, exemplified by important cases which are being cared for in the office of the Counsel of the State Society, will be discussed. Our "Forum for Correspondents" is open for liberal discussion of pertinent questions and we hope that all physicians will write freely. Beginning in January, we shall attempt more frequent publication in order to maintain closer intimacy with our members during the legislative session, and the result of that experiment will determine the future course of this paper.

A friend of ours in Oregon writes that the members of the Oregon State Medical Society now cheerfully pay twenty dollars in annual dues, and are strongly united in militant action to place and keep medical practice upon the highest planes in that state.

Money, time, effort and Oregon spirit are needed in New York right now if we are to attain any real measure of success.

N. B. V. E.

* Resigned.

ABRAMS' ELECTRONICS TAKEN SERIOUSLY

That good old publication, the *Scientific American*, presenting principally popular science and some very technical matter with reliability in former years, advertises to physicians the fact that it is about to conduct an investigation into the "electronic reactions" claimed by Albert Abrams, together with his "oscilloclast," his "dynamizer," etc., as we understand it.

We speak of the reliability of the *Scientific American* in former years, because we noticed with regret an apparent yielding to the glitter of false gods in the March, 1923, number of that periodical, in which an unidentified Edwin F. Bowers, M.D., "author of *Teeth and Health*," and invested with the brevet "medical expert," recommends a pseudo-scientific and partly false disquisition on "Fluid Pressures on the Brain and Cord," by William West, of New York City, who places "Dr." before his name, though not known to the compilers of the list of all the physicians in the metropolis.

The *Scientific American* announces that it will "enter the investigations (of Abrams) open-minded and unprejudiced and at the same time unwilling to either endorse or expose without first-hand proof." It will "investigate on a thorough, scientific basis; listen to the arguments and claims of both sides; and conduct a series of tests under the Abrams methods, with a critical examination of the apparatus," adding, "Dr. Abrams has placed at our disposal his services and his laboratories, and eminent members of all branches of the medical profession will assist in this sincere effort to give the public the truth on this subject."

A great deal will depend upon who are denominated "eminent members of all branches of the medical profession," and whether honest, competent, serious physicians will be treated as they were at Boston, Mass., just a year ago, when such physicians sitting near, during a test, could neither see nor hear any reactions, while his followers far distant, claimed to be able to do so; Abrams afterward persistently refusing to submit to tests that could be scientifically controlled.

Some years ago the "Keely Motor" successfully maintained a great vogue. The claim was made by its "inventor" that it was run by "energy" derived from a pail of simple water occasionally poured into it, without the aid of heat, or of light, or of electricity. Wheels immediately revolved and machinery was set in motion.

So cleverly was the apparatus exploited and so smooth-tongued was Keely with his intricate pseudo-scientific explanation, that for several years his dupes cheerfully supplied ample funds, upon which the shrewd impostor and his family

lived comfortably for years. Able engineers and competent mechanics and physicists repeatedly showed the crass falsity of Keely's statements, and the impossibility of all of his claims; but a large and enthusiastic public, ignorant of mechanics, insisted upon believing and being hoodwinked.

Sober, serious investigations were allowed, up to a certain point, by competent and incompetent people; but Keely always deceived or foiled them, and at least silenced them with his clever tirade of pseudo-scientific terms and claims.

Finally, when an exposé was imminent and the gullibles eventually demanded an explanation of the delay in practical development, and the failure to show dividends earned, an explosion occurred in the engine room (which we would now call "the research laboratory," at the very least). The "inventor" Keely hoped he would be held safe by this catastrophe. But alas! Some fussy subscribers whose patience was exhausted, in grubbing about the ruins, discovered and demonstrated a long tube of very small calibre, which connected the machine with a very distant steam boiler, and the colossal fraud was uncovered.

If the *Scientific American* conducts a real investigation of Abrams, what can we expect for the man who claims to be able to find, with his mysterious machine, apical tuberculosis and syphilis in persons found free from such diseases by competent physicians in Boston? What can we expect competent and earnest investigators will find concerning the "electronic reactions"? What can we expect will be reported concerning the "vibration rates" of drugs, to be replaced by those communicated by the oscilloclast to the patient, who will get thus—it is claimed—the same results he would have had from ingestion of the drug? Then, too, what must be the result of inquiring into the possibility of diagnosing disease by examining a drop of dry blood on a piece of blotting paper, or by studying an autograph of a dead man?

It may have been after contemplating an "oxy-donor" or a "Keely motor," or an "oscilloclast" that a Roman wrote so many years ago, "Homines fere libenter id quod volunt credunt."

————— A. W. F.

IMMIGRATION AND THE PHYSICIAN

As an apostle of prevention, every physician is committed to and deeply interested in all measures of municipalities taken to enforce sanitary precautions and to prevent infection and contagion.

It is well known that certain peoples of Europe, unless controlled, lapse into conditions of personal neglect and community squalor that invite bacterial growth and the propagation of infective disorders.

Desperately careless, reckless and resistive, they constitute a menace everywhere. But especially are they dangerous in this country, to which they come as a free land; for by "a free land" they mean a country in which there is no control or restraint, and in which laws, if any exist, may be ignored. It is very difficult to teach them that the American definition of freedom is self-control.

And so immigration becomes a matter for the serious consideration of the physician and all other sanitarians, who are led inevitably to the conclusion that the indiscriminate reception of aliens into America is fraught with the greatest dangers.

The solution of the problem lies in the careful selection for invitation to these shores of the best classes of immigrating foreigners. Our present method of filling quotas from different countries seems absolutely puerile and fallacious. By these means we do not get a desirable stream of immigrants, but a flood in which the lesser proportion of clear fluid is muddied and even befouled by the greater proportion of rank undesirables.

We need laborers and mechanics. But we need also those and only those who will rapidly become law-abiding citizens; who will cordially and entirely obey the regulations of departments of health.

To cite a single compelling example, Canada goes into the countries from which she desires immigrants, such as Holland, and opens recruiting stations in which the native people are instructed in the advantages of the Dominion. Illustrated books, maps and pamphlets, samples of wheat and of flax, of beans and of barley, and of other products are exhibited or given to all interested, and full and simple explanations are given regarding the easy terms on which farm land may be acquired, and situations for mechanics and other workers may be promptly secured.

By such means, intelligent and worthy people can be secured, and valuable additions made to the law-abiding population.

The United States of America, on the other hand, has certain provisions in the Immigration Law under which it is forbidden to import contract laborers (even if they be clergymen) and it is also forbidden to go into a foreign country and solicit emigrants. The remedy lies in the hands of the 89,000 members of the American Medical Association, who should demand of the Congressmen a repeal of such provisions of the act, and the enactment of a section of new law providing for the establishment of stations for the recruiting of desirable immigrants, and for the offering of simple inducements, especially to mechanics, carpenters, stonemasons, plasterers

and bricklayers, of which there is a dearth, with a resulting clog upon all building and housing construction, which in turn causes unhealthful overcrowding with higher infant mortality, fomenting of infection and invitation to insects with their successful role in the propagation of disease.

The countries in which America should go and establish emigrant recruiting stations should be selected by the Secretary of Commerce of the United States, and the Secretary of Labor of the United States, with the aid, advice and instruction of consular agents.

A. W. F.

THE BOND ISSUE

Let it not be said that the physicians of New York State neglected any possible effort, at the election of 1923, to carry into operation the bond issue of \$50,000,000 to provide adequate, modern, fireproof buildings for housing the State insane.

The fact that twenty-five people were burned to death in a fire trap on Wards Island this year, and that all of the other State Hospitals are exposing their patients to exactly the same dangers, added to the facts of overcrowding that make the treatment of the insane in the State institutions a hideous nightmare, are conditions that cannot be refuted or temporized with.

The medical personnel of the State Hospital management, although in no sense responsible, suffers handicaps that can only be surmounted by largely increased and properly arranged buildings which would provide these unfortunate patients with the quiet, rest, regime, and physical and mental therapy of real hospitals, instead of the punishment of imprisonment in quarters so congested that there is neither sufficient air space nor room for self-respect.

Under present living conditions the demoralization of the insane is about as complete as possible, the salvage of the curable is increasingly difficult, service is crippled by inadequate facilities, and scandal hangs over us like a Damoclean sword.

Replacements must be made rapidly and on a large scale at the earliest possible moment.

The money must be voted by the people, and if the present measure is carried out the amount authorized will be distributed over a period of twenty-five years, not more than twenty-five per cent of the money to be spent in any one year.

Every physician should use every influence he possesses to secure votes for the bond issue which will make possible such a vitally important public work.

N. B. V. E.

DEPARTMENT OF LEGISLATION AND LAW

By James N. Vander Veer, M.D., and George Whiteside, Esq.

THE COMING LEGISLATIVE SESSION

Looking forward to the coming session of the Legislature in the hope that we may gain more right and justice in the interest of public health, it is but fitting that a few words be directed to the members of the medical profession before they cast their votes for candidates who will represent them in the legislative halls.

A legislator is a human being, and we have no right to ask of him unreasonable things. If he is asked to support or defeat a measure that he is not thoroughly acquainted with from every angle, his intelligence is being insulted. The fact that he does not see matters in the light of its proposers does not declare him a dullard nor mitigate against his integrity. These men sent here from all over the State want to do the right thing by everybody (at least we give them the benefit of the doubt), and therein have about the hardest task one could have set before them.

The medical profession must be patient, reasonable and thoughtful with the legislators and see to it *that they are thoroughly informed* as to the medical questions being brought up each year in the legislative halls. Sound logical argument must be given them in behalf of the interest of the public's health.

It must be kept in mind that the representatives last year failed to support our issues and it is up to the profession now to find out the "why and wherefor" for such action.

The candidates for election this year must be won over before they are elected. If they cannot be depended upon, don't elect them.

Those representatives who are up for re-election must be made to change their viewpoints by you proving to them that they are justified in so doing, and you must give safe, sane and logical reasons to back them up.

Last year an opening wedge was made for health centers; we must be against such if they deprive the physician by State competition of his rights to practice as conferred through State law. We must be in favor of such, if it can be honestly shown that they will benefit the people and the medical profession *of the State*, and not of a small single community—thus partaking of local character.

Several narcotic bills very nearly became laws; but were lost during the last rush hours of the session. These will undoubtedly be brought to the front early in the session of 1924, and concerted action on the part of the medical profession will be required to modify the laws which would impose greater restriction upon us than we are already struggling under.

The Sheppard-Towner act was written into our statutes.

It is now for the profession to condemn the trend of legislation which takes away from the physician his professional liberties.

Conferences with the candidates must be the watch-word for the next few weeks. It matters not how seemingly insignificant they are, for they will pave the way to a broader understanding and a knowledge on the part of the legislators that "votes count," and that the medical profession is determined that no representative will be sent to the legislative halls with their indorsement, who has not first proven to their satisfaction that he realizes that his first and by far his most important duty as a legislator is to conserve the health and welfare of his constituents.

If our work is well done within these few weeks preceding election our efforts will bear fruit, and we will have laid a cornerstone for our constructive building during the legislative session of 1924.

J. N. V. V.

A LAY JURY MAY JUDGE YOU

Doctor, do you ever have a bad result in a case? When you do, are you to blame? *You* can answer these questions readily. How would you like to have the questions answered by twelve *laymen*? You may at once object and say that laymen do not understand the intricacies of your science to which you have devoted a lifetime of study. You may say that it is unfair to be so judged by those uninformed in medicine and science. You may say that you will never be placed in the position of having twelve laymen decide whether you are to blame or not because you have given time and study to your profession and do the best you can. That is what probably one hundred and twenty-one members of the Society who were sued last year have said, but their saying so did not save them from suit. A thousand physicians may agree that your treatment was proper and approved, but it takes but one physician testifying in court against you to say that the bad result to the patient was due to your use of improper methods and practice to place the decision in the hands of twelve laymen. How will the jury of twelve laymen decide? There is the rub. If you are sued for a bad result in a case, although you were faithful, conscientious and scientific in your treatment, you cannot escape the anxiety of the outcome or the humiliation of the suit. Why should you add to these discomforts the financial worry occasioned by the possibility of an adverse judgment? Why should you hazard the proceeds of your life's work upon a verdict of a lay jury? A small premium each year under the State Society's group insurance plan furnished by a reputable, efficient and financially sound company, the Aetna Life Insurance Company, will relieve you of every part of that financial liability arising out of your professional practice. If you have not already availed yourself of this protection, you can get information from your local Aetna agent or from the counsel of the Society.

G. W. W.

Forum for Correspondents

The Council at a meeting held in Albany, April 204, 1922, moved, seconded and carried

That the Journal be not used to in any way suppress any expression of opinion; and that its correspondence columns be open for all proper communications; and that "proper" communications will be deemed those which are not slanderous or libelous in their nature.

September 30th, 1923.

Editor of the NEW YORK JOURNAL OF MEDICINE:

DEAR DOCTOR: I am enclosing herewith an account entitled *Vox et Praeterea Nihil* which is not a fiction but an actual experience. The statements of the speaker are in fact but extracts of his argument and are quite typical of the school he represents, the *Physical Culturists*.

Since they are perhaps even more openly inimical and defamatory of the Profession than the other Paths and Cults, the enclosed article may interest some of your readers.

VOX ET PRAETEREA NIHIL

"Doctors are fakers. Their game is to get your money, not to cure you. Why don't you people wake up? When will you get wise to yourselves? Doctors know nothing of what ails you unless you tell them yourselves. Don't take my word for it. Go to one of them and try them."

Chancing to pass along the boardwalk of a nearby popular summer resort we were attracted by the impassioned, vehement voice of the speaker of the foregoing complimentary remarks. He was on the platform of a Physical Culture auditorium operated by a well known exponent and propagandist of that cult who has found it a panacea for the various ills of suffering mankind. The speaker's voice was loud, fiery and full of indignation toward the predatory profession which he was exposing. Hoarse and hot with declaiming and frantically waving his arms, he questioned his hearers. "Do the Doctors cure you?" Then in a tone of bitter contempt and disdain, he shouted, "No," and "Why not?" (this very shrewdly, with one eye closed, and a sidelong glance at the audience). "I will tell you my friends. Because they will destroy their source of income when you are all healthy. They will have no more suckers to prey on. Do they ever intend to cure your my friends?" Shaking his head from side to side as if in a fit of determination to shake that member from his body and gnashing his teeth for better emphasis, he shrieked, NO, NO, NEVER!

At this point in his invective the orator paused to quench his burning throat and reached for a glassful of water. Holding the untasted water over his head for several moments (perhaps to assure himself that none of the deadly alkaloids and baneful dope which the Doctors are so fond of using had surreptitiously been dissolved in it) he hoarsely continued, "And, my friends, what do you find in the corner drug stores but deadly dope and poisonous alkaloids, recommended by the Doctors' TRUST and handed out to you by the druggists? What do they do this for? To poison your system and bring you to an early grave. This is what the Doctors' TRUST aided by the drug stores, is doing to you for the base and ulterior purpose of getting your money."

He had, in the excitement of the foregoing exposure, gradually been raising his tone which, unless he had been obliged to stop by a paroxysm of coughing, must shortly have reached high C. The strained position of his uplifted arm, the fit of coughing, the fire in his throat, and the moral pangs he suffered, in contemplating the grievances his fellow-friends were subjected to at the hands of the ruthless and mercenary Doctors' TRUST, impelled him to lower the glass of water to his lips and find what balm there was in gulping it down.

Thus revived, he pursued his topic in a similar passionate vein. At such times in his harangue as he would become particularly abusive and vulgar in his remarks concerning the profession the occasional titter of some girl could be heard in the crowd but the great

majority were earnestly listening and apparently weighing the soundness and sincerity of the speaker's arguments. Whether their judgment in consequence was faulty or creditable to them will shortly appear.

They must have realized (as, indeed, it was quite obvious the speaker did himself) that this man was being paid to speak and that he was trying at all costs to be worthy of his hire. When finally he decided that his vilification and slander of a noble calling had been thorough enough for the present, he came to his real purpose. Holding several Physical Culture periodicals in either hand and extolling the life-preserving value of their contents and repeatedly crying out that here and here only was the secret of perfect health, he offered for the modest sum of fifty cents such advice as was ridiculously cheap at thousands of dollars. Apparently the crowd was not out for bargain hunting. Had he been less libellous and ungracious, the sweat of his brow and the fire in his red face might have brought a better sale if only in sympathy for his efforts. But the judgment of the throng was sound; they penetrated the mask of insincerity; they realized that here was a man paid for speaking but pretending to be solicitous of their health; they were sceptical of his hammering methods; and in general proved that, excepting the platform whereon he stood, the speaker was above them in nothing—for to all those hundreds he sold not even one Physical Culture periodical.

All the froth and fume had been wasted. All the scurrility and abuse, all the libel and slander, had availed him naught. All the knitting of brows, all the gnashing of teeth, all the fire in his face and voice, in short, the whole and entire stock-in-trade of this class of speakers, had gone for nothing, had reaped him a harvest of failure.

When will the gentlemen of this school adopt an ethical position? Or even, a semi-ethical position? Surely the outcome in this case would have been none the worse for it in the number of copies sold and while he need have sacrificed none of the emphasis on the merits of his own cult, he might have gained in self-respect and in the esteem of others by refraining from the uncalled for abuse and slander of a time-honored and noble profession.

FREDERICK WEINTRAUB, 224 17th St., Brooklyn.

ILLINOIS STATE MEDICAL SOCIETY

LEGISLATIVE COMMITTEE OF THE COUNCIL

Editor, NEW YORK STATE JOURNAL OF MEDICINE:

DEAR DOCTOR: I am preparing a contribution to a showing on christian science, dealing with the subject from the medical point of view.

With collaborators, one a distinguished writer on eccentric thought, and another, a lawyer, nationally known as an effective antagonist of the pretensions of christian science as a system of healing, an effort in book form, is being made to acquaint a long-suffering public with some new and damaging facts concerning this cult.

Every physician has first-hand knowledge of cases wherein favorable results could reasonably have been expected to follow the timely use of proper medical or surgical treatment, but which through reliance on christian science, ended in serious injury or death of the patients. The "story" of these cases, told by representative physicians, will be welcomed by the quack-ridden public. Mortal ear will incline to these children voices from untimely graves, in a way most unwelcome to those who plunder the sick while in the attitude of prayer.

If this undertaking meets your approval, will you not, Mr. Editor, make an appeal to your readers for reports of cases which can be used in the forth-coming volume. There will be no undesirable publicity, as names are not to be published. With appreciation of the favor I am asking, I am, cordially yours,

CHAS. E. HUMISTON, *Chairman*.

5533 Race Ave., Chicago.

STATE DEPARTMENT OF HEALTH NOTES

DR. BROOKS APPOINTED DEPUTY COMMISSIONER

One of the first duties of the State Commissioner of Health, Dr. Matthias Nicoll, Jr., when he was appointed by Governor Smith in July to succeed the late Dr. Hermann M. Biggs was to fill the vacancy in the position of deputy commissioner which Dr. Nicoll had himself held for several years. Establishing by his first appointment the policy of advancing whenever possible trained and experienced men already in the service, the Commissioner selected for this position Dr. Paul B. Brooks who has been a member of the staff of the State Department of Health since March, 1915, when he was appointed sanitary supervisor for a district centering at Binghamton. Subsequently he served as Director of the Division of Communicable Diseases, and for the last four years has been assistant director of the Division of Laboratories and Research. Dr. Brooks' long experience in different branches of the State health service and his extended acquaintance with the physicians and health officers of the State give him unusual qualifications for assisting the new commissioner in administering the varied activities of the Department.

DR. EDWARD H. MARSH APPOINTED SECRETARY

Effective October 1st, Dr. Edward H. Marsh of Brooklyn has been appointed secretary of the State Department of Health to succeed Curtis E. Lakeman who has resigned to join the staff of the Commonwealth Fund Program for the Prevention of Delinquency. Dr. Marsh also entered the State Department of Health as a sanitary supervisor in 1917 afterward organizing the Division of Venereal Diseases. For several years he has acted as Secretary of the Public Health Council and will continue to fill this position in connection with his new duties as Secretary of the Department. He will also have charge of the New York City branch office of the Department where he will continue to administer the post graduate courses of instruction for health officers and nurses which are conducted by the State Department of Health in cooperation with the University and Bellevue Hospital Medical College of New York University.

POLIOMYELITIS IMMUNE SERUM FOR DISTRIBUTION

Human serum has been used in the treatment of cases of poliomyelitis before paralysis by Amoss and others with favorable results. A limited quantity of immune serum has been prepared by the State Department of Health for distribution to physicians making request by telephone to the Division of Laboratories and Research, Albany, N. Y. This serum should be used only for cases in which it has been possible to make a reasonably certain diagnosis of poliomyelitis in the pre-paralytic stage. When possible, the spinal fluid should be examined. The serum is used intraspinaly and intravenously. Instructions for its use will be sent with the serum.

OTHER STAFF CHANGES

Several other appointments have been made to fill vacancies in classified civil service positions in the Department. Dr. Jonathan Pearson has been appointed director of the division of tuberculosis to succeed Dr. Frederick W. McSorley who has recently resigned to join the medical staff of the Equitable Life Assurance Society. Enlargement of the division of tuberculosis having been made possible by legislative appropriations for the fiscal year beginning July 1st, Dr. Robert E. Plunkett has been appointed supervisor of tuberculosis clinics. No change is contemplated in the established policy of the department in conducting its field tuberculosis clinics in the closest possible co-operation with the local medical profession.

Dr. Elizabeth M. Gardiner has been appointed associate director of the division of maternity, infancy and child hygiene. Dr. Gardiner has for several years been

director of the corresponding bureau in the Rhode Island State Department of Health.

By legislation effective July 1st, the fifteen district sanitary supervisors of the department have had their titles changed to state district health officers. The districts covered by the several field officers remain the same except that Dr. Charles C. Duryee, for many years connected with the department, has been given a special assignment to advise in regard to health administration in cities, retaining the title of sanitary supervisor. The resulting vacancy in the position of district state health officer has been filled by the appointment of Dr. Ferdinand Reinhardt.

PUBLIC HEALTH COUNCIL HONORS MEMORY OF DR. BIGGS

The New York State Public Health Council, consisting of Dr. Simon Flexner, Dr. Matthias Nicoll, Jr., Dr. T. Mitchell Prudden, Dr. Stanton P. Hull, Dr. Jacob Goldberg, Prof. H. N. Ogden, and Mr. Homer Folks, voted at its meeting on September 18th, 1923, to spread upon its records the following minute in memory of the late Dr. Hermann M. Biggs:

"The relations between the Public Health Council of the State or New York and Dr. Biggs were somewhat different from those existing between Dr. Biggs and the many other organizations of which he was a member. It was Dr. Biggs who first suggested the establishment of this Council. It was his clear vision of the desirability of separating administrative from legislative duties in the field of health, and of placing the latter in the hands of a group, which led the Legislature and Executive of this State, in 1913, in the revision of the public health law, to create the Public Health Council, and to endow it with quasi-legislative authority.

"Dr. Biggs was Chairman of the Council from its organization until his death. While his official position, and his exceptional experience gave him at all times a very great influence in the Council, he always sought the consensus of opinion of the Council on all important matters of policy. The development of a Sanitary Code, dealing with matters which the staff of the Department and its local representatives were able to manage administratively, has been the chief duty of the Council. Not infrequently, however, at Council meetings, all routine matters were brushed aside by the Commissioner, in order to bring forward some proposed policy or action on which he desired the advice of the Council. It is indicative of Dr. Biggs' wise caution that before action he sought to clarify his own judgment and opinions in the light of group discussion.

"To every member of the Council it has been one of the most interesting and gratifying experiences of life to observe the consistent and continuous development of the policy and the organization of the State of New York in public health under Dr. Biggs' direction. His plans were always far-sighted and comprehensive, but he was always ready to take, at any time, those steps which might then be practicable. If further advances were blocked in one direction, he sought opportunities of moving forward in other directions. Thus, step by step, we have been privileged to witness the development of one of the most important branches of the State Government from relatively small beginnings into one of the most complete and effective of public health organizations. The Council feels itself unable to indicate in any adequate way the loss to the people of this State which is involved in the death of Dr. Biggs.

"His personal qualities, his patience, his soundness of judgment, his unerring estimate of public opinion, his skill in the selection of assistants, and in securing from them their loyal support and the best work of which they were capable, these, as also his many other exceptional gifts, were universally recognized.

"The Council deplors the death of Dr. Biggs and inspired by his work pledges itself to renewed devotion in the cause for which he labored so fruitfully.

Prunes

Contributions Invited

His Job

An American friend just over from the states dropped in to the *Passing Show* office with the latest joke on the American passion for standardization. A man was being questioned by an employer on his suitability for a fairly important job as a mechanic.

"But," said the employer, "are you an all-round man—a thoroughly trained mechanic?"

"Oh, yes," the man assured him; "for six years I had experience at the Ford works."

"And what did you do there all that time?"

"Well," said the man, "I screwed on nut 467."—*The Passing Show* (London).

What's in a Name

A National City man went to see a doctor.

"Doc," said he, "if there is anything the matter with me, don't frighten me half to death by giving it a scientific name. Just tell me what it is in plain English."

"Well," said the doctor, "to be frank with you, you are just plain lazy."

"Thank you, doctor," sighed the patient with relief. "Now give me a scientific name for it, so I can go home and tell the missus."—*San Diego Union*.

A countryman took his wife to see a doctor. Greatly interested, he saw for the first time the process of taking a patient's temperature. After the session was over, he sneaked back and whispered, "I say, Doc, how much will you take for that thing you put in her mouth?"

Another doctor met a couple in his consulting room. "Which one of you wants to consult me?" he inquired.

"I, sir," said the man.

The doctor turned to the woman. "Put out your tongue," he said.

"It's him as is the sick one," she demurred.

"Put out your tongue, madam," he repeated and, overawed, she obeyed.

"Now, keep it out," he ordered, and proceeded to examine into the man's case.

"I have just thought of an easy way to get rich quick," said the president of the music publishing firm.

"Fine," replied the vice-president. "What's the idea,"

"Let's pick out some good lunatic asylum and get the inmates to write songs for us."—*Baltimore American*.

While the diagnosis of the patient, who had eaten rather generously, was proceeding, the sick man said, "Doctor, do you think the trouble is in the appendix." "Oh, no," said the doctor, "not at all. The trouble is with your table of contents."

Ready for a Change

"I wish," said the little invalid who was being washed in bed, "that I need never, never have to be washed again."

"I'm afraid," said mamma gently, "that as long as you have me to take care of you, you'll have to reconcile yourself to be washed thoroughly every day."

The invalid pondered for a moment.

"Then," said she "I shall marry very early."

—*Los Angeles Times*.

To Be Used with Discretion

"How about this new drug that compels people to tell the absolute truth?" asked the laboratory expert.

"We'll turn out a supply," replied the manufacturer. "But be careful not to let the man who writes our patent medicine ads get hold of it."—*Washington Star*.

Clothes That Pass in the Night

Passenger (after the first night on board ship)—"I say, where have my clothes gone?"

Steward—"Where did you put them?"

Passenger—"In that little cupboard there, with the glass door to it."

Steward—"Bless me, sir, that ain't no cupboard. That's a porthole."—*Reynolds Newspaper* (London).

Curative Measures

In an English school the children had been examined, and their eyes tested, according to the education authority's latest decree. Those who were suffering from defects had notes given them to take home. Among the note-bearers was one of the name of Willie Jones, and the note he bore was as follows:

"Dear Sir—I wish to inform you that your son William shows signs of astigmatism, which ought to be attended to at once.—Yours faithfully, J. W., Headmaster." In the afternoon Willie brought this reply: "Dear Sir—I don't know just what it is that Willie's been doing, but I walloped him well this dinner-time, and you can have another go at him if he isn't any better.—Yours truly, William Jones, Sen."—*Argonaut*.

Conclusive

A Mormon once argued polygamy with Mark Twain. The Mormon insisted that polygamy was moral, and he defied Twain to cite any passage of Scripture that forbade the practise.

"Well," said the humorist, "how about that passage that tells us no man can serve two masters?"—*The Argonaut*.

Slight Mistake

"Jimmie," said the teacher, "why don't you wash your face? I can see what you had for breakfast this morning."

Little Boy—"What was it?"

Teacher—"Eggs."

Little Boy—"Wrong, teacher; that was yesterday."—*Capper's News*.

Dense Husband

He—Have you ever been married before, dear?

She—Of course I have. What do you think I am, a recluse?

The Kind He Played

"He takes golf seriously, doesn't he?"

"Yes. If he had a sense of humor, he'd stop playing."—*Life*.

Ditched

Ensign—"And you say you lost control of your car?"

Chief—"Yes. I couldn't keep up the instalments."—*The Naval Weekly*.

Art vs. Life

"What makes you think Higgins was lit up last night?"

"Well, I sat next to him at the movies, and when they showed the news-reel he tried to set his watch by a clock in one of the street scenes."—*Life*.

Bill Still to Come

"I saw you taking home a nice-looking lobster last night. How much did it cost you?"

"I don't know yet. The doctor is up at the house now."—*The Passing Show* (London).

Highly Recommended

Hostess (serving the cocktails)—"Be careful not to spill any of it, won't you? I notice it has a tendency to eat holes in the floor."—*Life*.

PUBLIC LECTURES ON HEALTH EDUCATION AND PREVENTION OF DISEASE

Given by the Public Health Education Committee, Medical Society of the County of New York, in Co-operation with the New York Academy of Medicine at Hosack Hall—New York Academy of Medicine, 17 West 43rd Street at 8 P.M.

Monday, October 29th, 8.00 P.M.—“Mental Disease as a State Problem,” C. Floyd Haviland, M.D., Chairman State Hospital Commission, Albany.

Wednesday, November 7th, 8.00 P.M.—“One of the Developments of Modern Medicine: Treatment of Diabetes by Insulin,” Henry R. Geyelin, M.D., Assistant Professor of Medicine at Columbia University Medical College.

Wednesday, November 14th, 8.00 P.M.—“The Nostrum and the Public Health,” Arthur J. Cramp, M.D., Chicago, Director Bureau Investigation and Propaganda Department, Journal American Medical Associations.

Monday, November 19th, 8.00 P.M.—“Glands of Internal Secretion,” Walter Timme, M.D., Attending Neurologist, Neurological Institute, New York.

Wednesday, December 5th, 8.00 P.M.—“Eugenics,” H. H. Laughlin, Sc.D., Cold-Spring Harbor, N. Y., Assistant Director of the Eugenics Record Office, Carnegie Institute of Washington.

NOTES

NEW YORK AND NEW ENGLAND ASSOCIATION OF RAILWAY SURGEONS

The 33rd Annual Meeting of the New York and New England Association of Railway Surgeons will be held at the Hotel Commodore, New York City, on the 7th and 8th of November. The clinics will be held on the 7th and the program on the 8th.

BUREAU FOR PART TIME WORK

The Bureau for Part Time Work with headquarters at 105 West Fortieth Street is a non-commercial bureau which finds part-time work for women who have definite training and ability. It makes a speciality of supplying physicians' secretaries and nurses, laboratory technicians, clinic assistants and hourly nurses. Financed by a New York philanthropist, this plan to centralize part-time work was an experiment when the bureau was organized in January, 1922. It has since proven, however, to fill a very definite need.

NEW YORK POST GRADUATE MEDICAL SCHOOL AND HOSPITAL

The New York Post Graduate Medical School and Hospital announces that there will be a course of lectures given at the Hospital on Friday afternoons, at five o'clock, for the coming season. These lectures are open to all the members of the medical profession and the following is the October and November program: October 19th, “The Pathology and Prognosis of Eye Changes in Diabetes,” Dr. Max Cohen; October 26th, “Uterine Hemorrhage—Its Significance and Treatment,” Dr. H. Dawson Furniss; November 2nd, “The Clinical Importance of a Knowledge of the Acid-Base Balance of the Blood,” Dr. Victor Myers; November 9th, “Insulin in the Treatment of Diabetes Mellitus,” Dr. Herman O. Mosenthal; November 16th, “Blood Transfusion,” Dr. Lester J. Unger; November 23rd, “Simplified Infant Feeding,” Dr. Roger H. Dennett.

PERMANENT HOME FOR QUEENS MEDICAL SOCIETY

A committee composed of Drs. Chalmers, Story, Thomas, Moss, and Boettiger, have purchased for the Queens County Medical Society, a plot of ten lots 100 x 200, on the Queens Boulevard, between Forest Hills and Kew Gardens, for a permanent home for the Society.

**Medical Society of the State of New York
District Branches**

THIRD DISTRICT BRANCH

SEVENTEENTH ANNUAL MEETING—SHARON SPRINGS,
FRIDAY, SEPTEMBER 14, 1923.

The morning was devoted to a demonstration of the methods of administering the sulphur inhalations, baths and douches and hydrotherapeutic use of the white sulphur and magnesia springs. Following this demonstration there was a round table on the subject of arthritis, opened by Orrin Sage Wightman, M.D., of New York City, President of the Medical Society of the State of New York, who admirably presented the results and deductions from his exhaustive research in arthritis.

Herbert B. Odell, M.D., presented a typical and interesting case of arthritis, which was followed by a general discussion of the subject.

Mr. Grossman, of the White Sulphur Springs Company, entertained the Third District Branch and its guests at dinner in the Sulphur Springs Pavillion Annex.

There being over sixty members present, the meeting was called to order at 2 P. M. by the President, Dr. A. J. Bedell.

A unanimous rising vote of thanks was extended to Mr. Grossman for his hospitality and entertainment, and the Schoharie County Medical Society and Dr. Herbert B. Odell for the demonstration of methods and facilities at the Sanitarium.

The Secretary was instructed to prepare and send to the bereaved, an expression of condolence of the Third District Branch, on the death of Dr. M. A. Wheeler, of Troy, and Dr. Roscoe C. Waterbury, of Kinderhook.

Dr. Nicoll, Commissioner of the New York State Department of Health, addressed the meeting on the policies, future plans and activities of the State Department of Health.

District Branch meeting clinics were advocated.

Arthur J. Bedell, M.D., President of the Third District Branch, delivered an address on Acute Inflammatory Glaucoma.

Orrin Sage Wightman, M.D., of New York City, President of the New York State Medical Society, in an address, outlined the policies of the State Society and the means of disseminating information concerning medical matters of interest to the layman.

Edward Livingston Hunt, M.D., of New York City, Secretary of the Medical Society of the State of New York, gave a résumé of the activities of the State Society during the past year, particularly the efficient labors of the legislative committee, and spoke of things to be attained in the near future.

Dr. Stevens was not present to present his address on fractures.

There being no further business, the meeting was adjourned.

C. G. ROSSMAN,
Secretary.

County Societies

COLUMBIA COUNTY MEDICAL SOCIETY

ANNUAL MEETING, HUDSON, OCTOBER 2, 1923

The meeting was called to order at “The Worth,” President John L. Edwards, M.D., presiding. Members present: Drs. Collins, Edwards, Gelster, Garnsey, King, Nichols, G. W. Rossman, C. G. Rossman, Skinner, Tracy, Robert, Van Hoesen and Vedder.

The minutes of the last regular meeting were read and approved as read.

The following officers for the ensuing year were elected: President, Frank B. Wheeler; vice-president, Charles L. Nichols; secretary and treasurer, Charles R. Skinner; censors, Louis Van Hoesen, Clark G. Rossman, W. D. Collins, F. C. Maxon and N. D. Garnsey.

Delegate to State Convention: John L. Edwards, alternate, Charles L. Nichols.

The treasurer's report showed a membership of 39; a balance of \$39.13 and a bond of \$1,000 was read and accepted.

A committee consisting of Drs. N. D. Garnsey, H. J. Noerling and Clark S. Rossman, was appointed to draft resolutions upon the death of Dr. Roscoe C. Waterbury. The president was instructed to extend the sympathies of the Society to Dr. Otis H. Bradley, who was ill and under treatment at the Hudson City Hospital.

Adjourned for luncheon. After luncheon the meeting was resumed at the Columbia Sanatorium at Philmont.

Dr. Nicoll, State Commissioner of Health, addressed the meeting and assured the members present of the hearty co-operation of the State Department under his administration and asked like co-operation from the profession.

Dr. Ryon, Superintendent of the State Hospital at Poughkeepsie, spoke at length upon the needs of state hospitals and asked the help of the members of the Society in obtaining a favorable vote for the bond issue amendment at the coming election.

Upon motion of Dr. Robert the Society expressed its approval of the amendment and pledged its support.

Dr. Bray, of Raybrook, assisted by lantern slides and patients, gave an instructive talk upon the physical signs in the early diagnosis of pulmonary tuberculosis.

MEDICAL SOCIETY OF THE COUNTY OF KINGS

The Clinical Committee, in announcing the following Fall Program, states that the usual high standard will be maintained.

Meetings will be held in the Library Building, 1313 Bedford Avenue at 5 o'clock.

October 5th—Dr. John E. Jennings, "Common Diseases of the Breast."

October 19th—Dr. Ralph H. Pomeroy, "Standards of Obstetric Practice."

October 26th—Dr. Oscar M. Schloss, "Diseases of the Newborn."

November 2nd—Dr. Joseph C. Regan, "The Contagious Diseases."

November 9th—Dr. W. Russell MacAusland, "Backache."

November 16th—Dr. Wm. Francis Campbell, "The Hernia Problem."

November 23rd—Dr. Louis C. Johnson, "Diabetes and Insulin."

December 7th—Dr. Frank S. Meara, "The Cardiac Stimulants."

December 14th—Dr. John B. Deaver, "The Essentials of Surgical Diagnosis."

December 21st—Dr. John O. Polak, "Bleedings of the Later Months of Pregnancy."

The Joint Committee on Graduate Education also announce that they have arranged a large number of graduate courses, which will be available about the middle of October.

THE MADISON COUNTY MEDICAL SOCIETY

ANNUAL MEETING, THURSDAY, OCTOBER 4, 1923.

The following officers were elected for the ensuing year: President, H. H. White, M.D., Earlville; Vice-President, S. Taylor Barton, M.D., Canastota; Secretary, George W. Miles, M.D., Oneida; Treasurer, Lavinia R. Davis, M.D., Oneida; Censors, Martin Cavana, M.D., Sylvan Beach; William Taylor, M.D., Canastota; O. S. Langworthy, M.D., Hamilton; Delegate to State Society, Nelson O. Brooks, M.D., Oneida.

L. C. Beebe, M.D., was reinstated to membership.

THE MEDICAL SOCIETY OF THE COUNTY OF QUEENS

REGULAR MEETING, LONG ISLAND CITY, SEPTEMBER 25, 1923

The meeting was called to order in the Chamber of Commerce. The president, Dr. C. B. Story, in the chair, After the reading of the minutes of the previous meeting, one candidate for membership, Dr. Helen A. Paul, proposed by the Board of Censors, was elected.

Dr. Thomas C. Chalmers, delegate from the Medical Society of the State of New York to the American Medical Association, made a very interesting report of the meeting of the House of Delegates at San Francisco, in the course of which he read a resolution proposed by him, adopted by the House of Delegates, and sent by the secretary of the American Medical Association to every County Medical Society in the country for its adoption or rejection, condemning the unnecessary, unprofessional and unlawful prescribing of alcoholic liquors. This resolution was adopted unanimously.

Dr. Chalmers reported for the committee appointed several months ago by the President to study the question of the erection of a permanent home for the Society, that an unusual opportunity had offered itself for the purchase of a desirable site at a very low cost, and recommended that the Society purchase the land. This report and recommendation was adopted and the committee empowered to devise ways and means for the financing of the purchase.

Dr. Boettiger called the attention of the Society to the fact that Assemblyman Peter B. Leininger, who proposed the Chiropractic Bill in the last session of the Legislature, had been denied renomination by his party, the reason assigned for his rejection being the opposition of the physicians in his district to his candidacy; and urged physicians to support the candidate named in his place.

The scientific session consisted of a paper by Dr. Haven Emerson, Professor of Public Health Administration at Columbia University, entitled: "Periodic Health Examinations the Private Practitioner's Contribution to Preventive Medicine." After a discussion of the papers opened by Dr. Charles S. Prest, secretary of the Queensborough Tuberculosis Association, the meeting adjourned and the members present with their guests partook of a collation that had been provided.

WAYNE COUNTY MEDICAL SOCIETY

THE ONE HUNDRETH ANNIVERSARY MEETING, PULTENEYVILLE, JULY 10, 1923.

During the forenoon members with their families assembled in the grove along the lake shore.

Members present: Drs. Allen, Bennett, Besemer, Brandt, Chase, M. E. Carmer, J. C. Carmer, E. W. Carr, Esley, Houston, Jennings, Johnson, Kelly, Lapp, Lewis, Meyers, Nevin, Reed, Richardson, Robertson, Sanford, Smith, Sheldon, Sherman, Sweeting, Thompson, Thorp, Van Dorn, Winchell, G. D. York, E. W. York, Young.

Visitors: Dr. John Van Duyn, Dr. Edward Van Duyn, Dr. Cooper, secretary of Onondaga County Medical Society.

Several physicians of Wayne County, who were not members of this Society, were present with their families.

Preparations being made, and tables spread, the entire company of about one hundred and thirty people sat down to dinner at 1.15 P.M. After a most bountiful repast, President Sanford called the meeting to order in the pavilion at 2.35 P.M.

The following speakers were introduced: "Historical Sketch," Dr. John Van Duyn; "Progress in Medicine," Dr. M. E. Carmer; "Pioneers in Medicine in Wayne County," Dr. H. L. Chase.

After the speaking, a great many enjoyed a boat ride in a launch on the lake.

MEDICAL SOCIETY OF THE COUNTY OF
WASHINGTON

ANNUAL MEETING, HUDSON FALLS, N. Y.

The meeting was called to order by the Vice-President, Robert H. Lee, M.D., at 11:00 A.M.

The following members were present: Drs. R. H. Lee, R. C. Paris, G. M. Stillman, J. T. Park, W. S. Bennett, J. L. Byrnes, Wm. C. Cuthbert, B. C. Tillotson, L. A. Hulsebosch, G. M. Casey, S. J. Banker, H. S. Blackfan, W. A. Leonard, L. R. Oatman, J. E. Armstrong, R. C. Davies, D. C. McKenzie, C. W. Sumner, H. Heath, R. E. LaGrande, W. L. Munson, M. A. Rogers, Z. V. D. Orton. Visitors: Drs. Carl Boettiger, New York; Edwin MacD. Stanton, Schenectady; F. G. Fielding, Glens Falls.

The minutes of the last meeting were read and approved.

The President appointed Drs. Banker, Casey and Stillman as Nominating Committee, and the following officers were nominated and elected:

President, Robert H. Lee, M.D., South Hartford; Vice-President, George M. Casey, M.D., Hudson Falls; Secretary, Silas J. Banker, M.D., Fort Edward; Treasurer, Russel C. Paris, M.D., Hudson Falls; Censors, J. Leonard Byrnes, M.D., Hudson Falls, Chairman; Byron C. Tillotson, M.D., Fort Edward, and Charles A. Prescott, M.D., Hudson Falls.

The Treasurer's report was read and approved. \$84.72 was reported in the treasury.

The following resolution was offered by Dr. Park and adopted by the Society:

Whereas, Dr. Heenan has been afflicted with illness for the past year, and

Whereas, Dr. Pashley has had serious illness in his family in the person of his son, for several months, be it

RESOLVED, That we all extend to these two brother members of our Society and their families our heart felt sympathy and hope for a speedy recovery for their afflicted.

Dr. Byrnes reported for the Board of Censors three registrations in the County during the past year.

Drs. Lesley A. White and Denver M. Vickers were elected to membership.

Dr. Davies reported for the Committee on Laboratory Work for the Cambridge Hospital that so far nothing had been done by the Board of Supervisors. The Committee was continued, Dr. Robert H. Lee being Chairman with Dr. Arthur E. Falkenbury and Dr. R. C. Davies.

Afternoon at 2 P.M.

The President Address consisted of his reading some very interesting and wholesome remarks from an old book entitled "Letters to a Young Physician."

"The Modern Treatment of Diabetes," Major Carl Boettiger, Laboratory Physician to St. Johns Hospital, Long Island City. Major Boettiger gave the physiology of the disease, the different dietary methods and finally a thorough explanation of the use of insulin. He was given a rising vote of thanks.

"The End Results of Gall Stone Operations," Edwin MacD. Stanton, M.D., Schenectady. Dr. Stanton claimed good results for cholecystotomy and cholecystostomy in cases properly selected for the different operations. Dr. Stanton was also given a vote of thanks.

"Tuberculosis of the Kidney," M. A. Rogers, M.D., Greenwich.

"The Proper Use of Spinal Anesthesia," Walter S. Bennett, M.D., Granville.

MEDICAL SOCIETY OF THE COUNTY OF
NASSAU

REGULAR MEETING, HEMPSTEAD, SEPTEMBER 13TH.

The meeting was held in the Air Service Research Laboratory at Mitchell Field.

After the reading of the minutes of the last meeting, a communication was read from the State Hospital Commission, in reference to the proposed bond issue for the benefit of the State Institutions for the insane and feeble-minded. Drs. Blaisdell and Mills spoke, briefly, of the importance of this proposed measure and urged the members of the medical profession to take an active interest in securing a favorable vote for the bond issue. Resolutions, indorsing the bond issue, were unanimously adopted.

The Board of Censors having reported favorably upon the following applicants for membership, they were declared elected: James W. Bulmer, Wright F. Lewis, William F. MacFee, Byron D. St. John, Willard E. Wheelock, Charles E. Woods.

Dr. George A. Newton, Chairman of the Committee on Legislation, made a brief, verbal report, outlining the prospective work of the Committee

Major Bauer, officer in charge of the Laboratory, and his staff then gave demonstrations of the means employed in the examination of Air Pilots, to determine the effects of varying altitudes and temperatures upon blood pressure, blood metabolism, eye-sight, hearing and mental action. A moving picture giving the actual movements of the heart was also shown. Altogether, the meeting was one of great interest and profit.

The Society voted, unanimously, to hold the Second Annual Dinner of the Medical Society of the County of Nassau, on Tuesday evening, October 16th, in place of the regular October meeting, and the following Committee of Arrangements was appointed: Drs. A. D. Jaques, Geo. A. Newton, F. F. Schirck, L. A. Newman, A. C. Martin and W. H. Runcie.

The Dinner will be held at the Garden City Hotel. The officers of the Society are Benj. W. Seaman, President; Richard Derby, Vice-President; James S. Cooley, Secretary-Treasurer.

Deaths

BLUESTONE, CLARENCE G., Holtsville; Syracuse College of Medicine, 1917; Member State Society. Died September 6, 1923.

CAMPBELL, JACKSON R., New York City; Bellevue, 1884. A physician in the Department of Correction for 37 years; Visiting Surgeon Fordham Hospital, 14 years; during the war, in U. S. Medical Corps. Died August 20, 1923.

MULBURY, CLAUDE DE VERE, Windham; University of Maryland, 1898. Member State Society; Coroner of Greene County. Died September 5, 1923.

ROSENBLOOM, JACOB, Pittsburgh, Pa.; College of Physicians and Surgeons of New York, 1909; Fellow American Medical Association; Member State Society; New York Academy of Medicine. Died September 25, 1923.

RUST, ELISHA ALONEY, Moira; University of Vermont, 1876; Member State Society. Died August 19, 1923.

STOCKWELL, RAYMOND WILLIAM, Oswego; University of Buffalo, 1910; Fellow American Medical Association; Member State Society; Oswego Academy of Medicine; Consulting Physician Oswego City Hospital. Died August 27, 1923.

WILSON, SIMEON J., Oneida; New York University 1880; Member State Society; Physician Oneida City Hospital, Obstetrician Broad Street Hospital. Died September 11, 1923.

Books Received

- A CLINICAL GUIDE TO BEDSIDE EXAMINATION. By DR. H. ELIAS, Dozent and Assistant at the First Medical Clinic of the University of Vienna, Austria; DR. N. JAGIC, Extraordinary Professor and Chief Physician to the Sofienspital, Vienna, Austria; DR. A. LUGER, Dozent and Assistant at the Second Medical Clinic of the University of Vienna, Austria; Arranged and translated by WILLIAM A. BRAMS, M.D., Chicago, Ill. Adjunct in Medicine, Michael Reese Hospital. Reban Co., New York, 1923.
- A TEXTBOOK OF CHEMISTRY FOR NURSES. By FREDUS N. PETERS, A.M., Ph.D. Author of "Experimental Chemistry." Director Laboratories and Professor of Chemistry and Metallurgy, Kansas City Dental College. Illustrated. Second Edition. C. V. Mosby Co., St. Louis, 1923. Price \$2.50.
- PRINCIPLES OF BACTERIOLOGY. By ARTHUR A. EISENBERG, A.B., M.D., Director of Laboratories, St. John's Hospital; Pathologist to Lakewood Hospital. Second Edition. C. V. Mosby Co., St. Louis, 1923. Price \$2.25.
- OBSTETRICS FOR NURSES. By CHARLES B. REED, M.D., Obstetrician to Wesley Memorial Hospital, Chicago. 144 Illustrations, two Color Plates. C. V. Mosby Co., St. Louis, 1923. \$3.50.
- DISEASES OF THE RECTUM AND COLON AND THEIR SURGICAL TREATMENT. By P. LOCKHART-MUMMERY, F.R.C.S. Eng., M.A., M.B., B.C. Cantab, Senior Surgeon St. Mark's Hospital for Cancer, Fistula and other Diseases of the Rectum, etc. William Wood and Co., New York, 1923. Price \$8.00 net.
- THE HEART. ITS PHYSIOLOGY, PATHOLOGY AND CLINICAL ASPECTS. By SELIAN NEUHOF, B.S., M.D., Visiting Physician, Central and Neurological Hospitals; Consulting Cardiologist, Broad Street Hospital; P. Blakiston's Son & Co., Phila., Pa., 1923. Cloth \$10.00.
- WALTER REED AND YELLOW FEVER. By HOWARD A. KELLY, M.D., 3rd edition revised; The Norman Remington Co., Baltimore, Md. 352 pages. Price \$2.50.
- THE HOSPITAL LIBRARY, comprising Articles on Hospital Library Service, Organization, Administration and Book Selection, together with Lists of Books and Periodicals Suitable for Hospitals. Edited by EDITH KATHLEEN JONES, General Secretary, Division of Public Libraries, Massachusetts Department of Education. American Library Association, Chicago, Ill. 1923. Cloth \$2.25.
- THE NORMAL CHILD; ITS CARE AND FEEDING. By ALAN BROWN, M.B., Physician in Chief, Hospital for Sick Children, Toronto; Associate Professor of Medicine in charge of Pediatrics, University of Toronto. Century Co., New York, 1923. Price \$1.25.
- PHYSICAL DIAGNOSIS. By RICHARD CABOT, M.D., Professor Medicine, Harvard University. Formerly chief of the West Medical Service at the Massachusetts General Hospital. Eighth Edition. Revised and Enlarged, six plates, 279 figures in text. William Wood and Co., New York, 1923. Price \$5.00.
- THE BIRTH OF PSYCHE. By L. CHARLES-BAUDOIN. Translated by FRED ROTHWELL. George Routledge & Sons, Ltd., London; E. P. Dutton & Co., New York, 1923.
- PENNINGTON'S "DISEASES AND INJURIES OF THE RECTUM, ANUS AND PELVIC COLON." By J. RAWSON PENNINGTON, M.D., F.A.C.S., Proctologist to the Columbus Hospital, Veterans' Hospital No. 30, and the United States Marine Hospital. Two plates, 679 illustrations. Published by P. Blakiston's Son & Co., Phila., Pa. 1923. Cloth \$12.00.

Book Reviews

CEREBROSPINAL FLUID, IN HEALTH AND IN DISEASE. By ABRAHAM LEVINSON, B.S., M.D., Associate Pediatrics, Northwestern University Med. Sch. With a foreword by LUDWIG HEKTOEN, M.D. 69 illus. Five Color Plates. Second Edition, thoroughly Revised. C. V. Mosby Co., St. Louis, 1923. Price, \$5.00.

This interesting and most useful monograph brings this important subject up to date and permits the physician and medical student to easily acquaint himself with the work done in the field.

The subject matter covers 260 pages and is particularly well illustrated. The subjects are divided into nine chapters and a summary. Each chapter is followed by a bibliography.

The subject is covered in the following manner: 1. History of cerebrospinal fluid; 2. Anatomy and physiology; 3. Methods of obtaining the cerebrospinal fluid; 4. Physical and chemical properties of normal cerebrospinal fluid; 5. Physicochemical properties; 6. Pathologic cerebrospinal fluid; 7. Methods of examination for diagnostic purposes; Cerebrospinal fluid in various diseases; 9. Intraspinal treatment.

The author shows the close comparison between the chemical constituents of the blood and spinal fluid and advises the same methods of analysis.

In Chapter Seven the benzoïn test, used extensively in France, is mentioned but not described.

THE URETHRA AND THE URETHROSCOPE, A MANUAL OF PRACTICAL URETHROSCOPY. By F. CARMINOW DOBLE, M.R.C.S., L.R.C.P. (Lond.) With foreword by MAJOR A. T. FROST, O.B.E., R.A.M.C. Oxford University Press. Price, \$3.40.

This excellent little book deserves a place in the library of every surgeon practicing urethroscopy, particularly since so little space is given to the subject in text books.

While a large variety of endoscopes, embodying the principle of direct and indirect illumination are minutely described, it is unfortunate that the English author has not included a number of the popular American scopes. There is need for closer co-operation and study between the surgeons of different countries. Good colored plates help the reader to visualize various lesions and directions are given for carrying out the treatments.

The author has wisely included a chapter on endoscopy of the female urethra, and points out how lesions in this location may go undiagnosed and untreated for lack of study.

The text is clear, concise and comprehensive.

AUGUSTUS HARRIS.

INFLAMMATION IN BONES AND JOINTS. By LEONARD W. ELY, M.D., Associate Professor Surgery, Stanford University. 144 illustrations. J. P. Lippincott Company, Philadelphia, 1923.

The impression formed by the reviewer after reading the text at some length was one of disappointment and skepticism; this impression was formed by the numerous statements made by the author concerning certain aspects of bone and joint pathology which differ from the accepted opinions of most authorities. The author disarms criticism somewhat by stating at the beginning of the book that this is so.

He has done considerable experimental work both on laboratory animals and clinically and the book is a compilation of the results of these experiments, which deal almost entirely with the pathology of bones and joints. Many of the statements he does not prove, the reader being left to conclude as the author does, not having the details of the experiment to form his own opinion. For example, he states that tuberculosis starts "just to the shaft side of the epiphyseal disc" in children instead of in the epiphysis, as is commonly accepted.

Why he thinks so cannot be understood; he may be right, but proof should be furnished.

We believe the book is of considerable value in the treatment of bone pathology, as far as known at the present day, and also in starting new thought and possibly suggesting new channels of investigation to clear up many of the at present obscure and unknown bone and joint lesions.

Men interested in the subject will find food for thought in the book.

DUFF HOUSE PAPERS. Edited by EDMUND I. SPRIGGS, M.D., F.R.C.P. Volume I. Illustrated, 190 figures, 6 charts, 1 colored plate. Oxford University Press, 1923. Price, \$9.50.

This publication is the collected papers and reports of the work done at this hospital from the time of its opening, in September, 1913, to the present time. The papers are carefully written and thorough and give an excellent account with illustrations of the work done upon the digestive tract. The X-Ray work shows to advantage and one realizes the vast amount of effort given to the preparation of these studies. The second half of the book is devoted to a detailed account of the treatment of diabetes. It is a careful, painstaking presentation of the modern conception of this disease with the dietetic treatment given in detail. Insulin is mentioned, but its use is subsequent to the preparation of this paper. These articles are well worth the study of any physician.

H. M. M.

EXERCISE IN EDUCATION AND MEDICINE. By R. TAIT MCKENZIE, M.D., LL.D., Professor Physical Education and Physical Therapy and Director Department Physical Education, University Pennsylvania. Third Edition. Octavo, 601 pages, 445 Illustrations. Phila. and London. W. B. Saunders Co. 1922. Cloth, \$5.00 net.

This is the third edition of a very valuable volume written by that master in art and physical education.

The work is in two parts. The first part deals with exercises in health. Emphasis is especially laid upon the effects of exercise in the physiology and anatomy of the human organism. A description is given of the various schools and systems and their special effects. Stress is laid on the various exercises suitable for different ages and classes of normally physical individuals.

The second part deals with the application of exercises in pathological conditions. The contents of the second part consists in chapters devoted to the treatment by exercise of flat feet, round shoulders, scoliosis, abdominal weakness and hernias; visceroptosis and constipation, respiratory diseases, circulatory diseases, obesity, neuritis, tic, chorea, infantile paralysis and locomotor ataxia. There is much to be said regarding the simplicity and conciseness with which these various conditions are so completely discussed.

It is a very valuable book. No man who is interested in physical education or the treatment of disease by physical measures can very well be without it.

B. KOVEN.

NUTRITION OF MOTHER AND CHILD. By C. ULYSSES MOORE, M.D., M.Sc. Instructor Diseases Children. University Oregon Medical School. Including Menus and Recipes by Myrtle Josephine Ferguson, B.S., B.S. in H.Ec., Professor Nutrition, Iowa State College. 33 Illustrations. J. B. Lippincott Co., Phila. and London. 1923. Price \$2.00.

This admirable book, written by a man of experience in dealing with the infant and child, has only one drawback. It is easy to read, and the illustrations are excellent. The sick child has been only touched upon, as the preface says this volume is not intended to replace the physician in the home. As is proper, breast feeding has

been emphasized, and the technique of emptying the breasts has been described in greater detail than usual. The foreword truly says: "Breast feeding is his central and indispensable message. Others have advised it and some have emphasized it. Dr. Moore insists upon it, and what is more to the point, he shows that it is possible for every mother." The plainness of his explanations, and the common sense shown in dealing with his subjects, show him to be a master of language and a master in experience.

The drawback mentioned in the beginning is this: He advises boiling milk for infant feeding. Of course if the milk supply with which he is working is not certified, which is the only milk to be used raw, then his advice to boil the milk is good. But raw certified milk is so superior to all other milk for infant feeding, that this advice seems like going back twenty-five years.

Notwithstanding this drawback, this book is to be highly recommended.

A. D. S.

INTERNAL MEDICINE. A Work for the Practicing Physician on Diagnosis and Treatment with a Complete Desk Index. In three volumes. Illustrated, 427 Text Cuts, 14 in Color. Vol. I. Medical Diagnosis in General; The Methods and Their Immediate Results; Symptoms and Signs, Tests. By JAMES C. WILSON, A.M., M.D., assisted by CREIGHTON H. TURNER, M.D. Vol. II. Medical Diagnosis: The Clinical Applications of Diagnostic Methods; The Natural History of Disease; Direct and Differential Diagnosis; Prognosis. By JAMES C. WILSON, A.M., M.D., assisted by CREIGHTON H. TURNER, M.D. Vol. III. Treatment. By JAMES C. WILSON, A.M., M.D., and SAMUEL BRADBURY M.D. J. B. Lippincott Co., Phila. and London, 1923.

This work is published in three volumes, the first of which is devoted to the description and discussion of clinical signs and symptoms, with a short section on laboratory examinations. The second volume considers the discussion of various diseases. The third volume takes up the treatment. A desk index completes the set. The whole work is fairly complete, and carefully presented. It can be recommended to the student and practitioner.

HENRY JOACHIM.

APPLIED PSYCHOLOGY FOR NURSES, DONALD A. LAIRD, Assistant Professor Psychology, University Wyoming. Illustrated. J. B. Lippincott Co., Phila. and London, 1923. Price, \$2.50.

A splendid little book. Professor Laird is a born teacher, who has handled an ordinarily abstruse subject with wonderful skill. Every difficult point is made clear by practical examples and analogies; the style is direct and forceful, compelling the attention, and the author's happy faculty of expressing his ideas in simple language and homely illustration have resulted in a work which should be easily understood by anyone with average intelligence; while the book is, of course, primarily directed to nurses, it can be read with profit by anyone who desires a superficial knowledge of this present fashionable topic. A valuable feature from the teacher's point of view is the "Topics for Discussion" which are introduced at the end of each chapter, and which are designed to stimulate the student's reasoning powers.

THE PHYSIOLOGY OF TWINNING. By HORATIO HACKETT NEWMAN, Professor of Zoölogy, University of Chicago. 12mo of 250 pages, illustrated. Chicago, University of Chicago Press, 1923. \$1.85.

Professor Newman, in the Physiology of Twinning, offers for the scientist an exhaustive review as well as a very plausible theory regarding the cause of this phenomenon.

This little book is readable, logically arranged, pro-

fusely illustrated and gives to the reader a tangible theory as to the cause of twins. One need not accept, as proved, his theory as to the underlying cause of twinning, to derive full benefit from a perusal of this book.

To the physician, especially the obstetrician, much that is dark will be made clear. Such points as Hemihypertrophy, Symmetry, Reversal, Mirror-imaging and Twinning in limbs, are thoroughly reviewed.

In conclusion the reviewer can thoroughly recommend this book for those who are interested in this problem.

G. W. P.

RAKE KNITTING PATTERNS. By BERTHA THOMPSON. Published by the Bruce Publishing Company, Milwaukee, Wisconsin, 1923. Octavo of 69 pages, illustrated. Paper, price \$1.85.

This book, with its abundant clear illustrations, offers a simple exposition of one form of occupational therapy. Rake knitting was very popular in the army hospitals during the reconstruction period. This pamphlet shows how it is done in a way that a man can understand.

F. D.

PRINCIPLES AND PRACTICE OF INFANT FEEDING. By JULIUS H. HESS, M.D., Professor and Head Department Pediatrics, University Illinois College of Medicine. Illustrated. Third Revised and Enlarged Edition. F. A. Davis Co., Phila. 1922. Price \$4.00 net.

We have in this book a very helpful guide to infant feeding in all its phases. It is an exceptionally clear and concise statement of scientific facts, which are the basis for the principles evolved. The clinical application of these principles, that is, the practice of infant feeding, is of course a prominent feature of the book, presented to the reader in a pleasingly simple and direct manner. The detail is sufficient for practical purposes but is not burdensome.

In the new chapters twenty pages are devoted to Acidosis, with a discussion of the latest researches and their bearing on the clinical aspects of the subject. Tests for determining the type and degree of acidosis and finally a definite logical plan of treatment is offered. Rickets, scurvy, and spasmophilia are taken up in a similar manner, and the mass of recent research work done by various investigators in these subjects is sifted by the author and presented in its essentials to the reader.

Especially worthy of note are Hess' etiological and clinical classifications of nutritional disturbances. Though the space actually occupied by these is small, they represent the sum and substance of a vast amount of time and thought given by the author to a phase of the subject which has perplexed pediatricians for years. We have in these classifications a medium for expressing in simple, logical terms our diagnoses of nutritional disturbances.

MANNING C. FIELD.

THE ANTIQUITY OF DISEASE. By ROY L. MOODY, Associate Professor of Anatomy in the University of Illinois. The University of Chicago Press, Chicago, Ill. 1923.

This volume is one of a series published by the University of Chicago on the belief that there should be a medium of publication occupying a position between the technical journals with their short articles and the elaborate treatises which attempt to cover several or all aspects of a wide field.

The volume is devoted to the study of the ancient evidence of disease, a rather ambitious undertaking for a volume of 140 pages. However, it is well worth reading. The evidence presented here is chiefly that of fossil vertebrates and ancient human races, the chief contribution being to mesozoic pathology and early man.

H. A. FAIRBAIRN.

THE PATIENT'S VIEWPOINT. By PALUEL J. FLAGG, M.D., author of "The Art of Anæsthesia." The Bruce Publishing Company, Milwaukee, Wis., 1923. Price, \$1.30 net.

This book starts out with a very ambitious program—a reconsideration of fundamental truths—and this within the space of a 12mo volume of 182 pages. We are informed that "the unwise employment of exhaustive laboratory methods to the exclusion of the personal attention and suggestive therapeutics which the sick require, coupled with small results often obtained, drives our patients to the exponents of the various pathies." And then follows the astounding statement: "Here they find that which they crave, a recognition of their personality and treatment for the symptoms of which they complain."

As a diatribe against modern medicine it is interesting. Most of us will still rejoice we live in the 20th Century.

H. A. FAIRBAIRN.

OPTICAL METHODS IN CONTROL AND RESEARCH LABORATORIES. By J. N. GOLDSMITH, Ph.D., M.Sc., F.I.C., S. JUDD LEWIS, D.Sc., B.Sc., F. TWYMAN, F.Inst.P. Second Edition, Vol. I. Published by Adam Hilger, London. 1923.

This is a bulletin of the Adam Hilger Company, manufacturers of Spectroscopic Apparatus.

It consists mainly of brief historical reviews of the different types of instruments, and a discussion of their application.

Abstracts of the literature, along certain lines, have been included. There is little to interest the physician. Reference is made to analysis of inorganic and organic material more or less indirectly related to medicine.

Aberhalden is quoted extensively.

AN INDEX TO GENERAL PRACTICE. By A. CAMPBELL STARK, M.B. and B.S. (Lond.), L.S.A. (Eng.), Ph.C., Exhibitor and Gold Medallist of the University of London; William Wood & Co., New York, 1923. Price, \$2.00 net.

The author endeavors to present for the benefit of those entering general practice his experiences of more than thirty years. The general practitioner in England evidently is not so carefully prepared for his work as in this country if the standard of his professional knowledge is reflected in the author's description and statements, many of which are not found to be used here. Little is said in detail in regard to treatment of diseased conditions, much is said in regard to the manner of conducting general practice as a business. This book does not seem serviceable to one beginning general practice in America.

URGENT SURGERY. By FELIX LEJARS. Third English Edition, translated from the Eighth French Edition by WILLIAM S. DICKIE, F.R.C.S., and ERNEST WARD, M.A., M.D., F.R.C.S. 20 Full-page Plates. 1086 Illustrations. William Wood and Co., New York, 1923. Price, \$16.00 net.

As expressed in the preface Lejars is an Idealist; as expressed in the text a Practical Idealist. The first edition of this work was published in 1897, and in the seven subsequent editions through which the book has since passed, the author has been faithful to his early conceptions. His object and dearest wish is to serve his fellow-men. The most important factor in the solution of this as expressed by Lejars is the determination of what should be done, and the desire to accomplish it.

The author has lived the book before writing it. He sets forth the indications for, and the technical details of, the principal urgent operations in an essentially practical manner without theoretical discussions, complex bibliography or description of untried methods.

ROYALE HAMILTON FOWLER.

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INFLAMMATORY PSEUDOTUMOR OF THE ORBIT.*

By WILLIAM L. BENEDICT, M.D., and
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Inflammatory pseudotumor of the orbit is a rare clinical condition which in most instances cannot satisfactorily be diagnosed without microscopic examination of the tissue involved. The condition is characterized by disturbance of motility of the eyes, proptosis, usually with lateral displacement of the eye in the affected orbit, swelling of the lids and increase in the bulk of retrobulbar tissue. As the quantity of tissue in the depth of the orbit increases, the eye becomes rather firmly imbedded, so that it cannot be pressed backward. The onset is slow, and not accompanied by the usual symptoms of inflammation.

That the swelling of the orbital tissue and the consequent proptosis are inflammatory is borne out by the microscopic appearance of the tissue rather than by symptoms and complaints of the patient, or the gross appearance of the mass at removal. Birch-Hirschfeld drew attention to the inflammatory character of the tissue, and suggested an infectious origin of the disease; his opinion is in harmony with the subsequent observations of Stargardt. The finding of focal infection elsewhere in the body, preceding or accompanying the signs of orbital tumor, also makes the infectious character of the condition seem probable. Such focal infections usually do not cause symptoms, and are either overlooked or disregarded as etiologic factors in the production of the orbital swelling. The patient usually is not suffering from the infections, and the absence of fever, high leukocyte count, and local pain serve to differentiate pseudotumor from the common inflammatory processes within the orbit. In all cases reported, the syndrome of benign or malignant tumor was present. Under the administration of drugs, certain suspected neoplasms disappeared, although specific action

of the drug used could not acceptably be ascribed except in cases believed to be due to syphilis or tuberculosis. Other cases of suspected neoplasm of the orbit have come to operation without a tumor being found; in still others masses have been found in the orbit, which on microscopic examination proved to be inflammatory and without characteristics of neoplastic formation.

Birch-Hirschfeld's classification of pseudotumors has been followed by most writers in reporting such cases; we also shall adhere to this classification in the consideration of our cases. The grouping of inflammatory pseudotumor of the orbit is as follows:

Group 1. Cases in which the syndrome of benign or malignant neoplasms is presented clinically, but in which recovery is spontaneous, or on administration of drugs, such as potassium iodid, mercury, and quinin.

Group 2. Cases in which the diagnosis of orbital tumor is made on the clinical picture, but the tumor is not found when the orbit is opened.

Group 3. Cases in which a tumor is diagnosed at operation, but on microscopic examination is found to consist of chronic inflammatory tissue.

Since the publication of Birch-Hirschfeld's review of the subject, we have been able to find in the reports in the literature of only five cases of pseudotumor of the orbit. None of these reports was printed in the English language. This would lead us to believe that inflammatory pseudotumor of the orbit is a very rare condition, yet its clinical significance cannot be disregarded, as six cases have come under our observation within the past three years. The paucity of published reports of well-studied cases justifies the recording of these cases in detail. Three of the six cases belong to the second group, and three to the third group of Birch-Hirschfeld's classification.

Group 2. Case 1 (A338840), Mrs. J. H., aged forty-seven years, came to the Clinic October 25, 1920, because of protrusion of the right eye, with swelling around, and particularly below the eye, of three months' duration. The patient, feeling that her teeth were the cause, against the advice of her dentist, had some bridge work removed and teeth extracted. The following day

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she had severe pain in the right temple; the swelling increased and the eye protruded. The pain was almost constant for a time and was relieved only by narcotics, but when she was seen at the Clinic ten days later, the pain had largely subsided.

On examination there was marked proptosis of the right eye with drooping and edema of the upper lid, the most prominent swelling being at the upper inner angle of the orbit. The eye was divergent and there was limitation of movement in all directions, more marked upward and inward. The pupil reacted rather sluggishly to direct light but more promptly to consensual light. The fundus was negative except for slight pallor of the temporal half of the disk. Examination of the left eye was negative. Vision was 6/30 right eye, and 6/6 left eye. Examinations of the urine and the Wassermann reaction were negative. The leukocyte count was 8,200; differential count was not made. The tonsils and nasal accessory sinuses were normal. A roentgenogram of the head revealed bony changes around the right orbit and the right parietal region of the calvarium, indicating destruction and repair of the bone in the region involved. A careful neurologic examination was negative, except for some small sensory changes on the right side of the face, the ptosis, and disturbances of the ocular muscles. The patient gave a history of migraine which made it difficult to judge whether the pain was due to the condition within the orbit.

A diagnosis of orbital tumor was made, and the orbit explored through an incision in the brow. No mass could be palpated in any part of the orbit. The wound was closed without removing any tissue, and it was noted that the degree of exophthalmos had not been changed by the operative interference. The wound healed promptly and the patient was dismissed three weeks after the operation. At this time the proptosis had receded somewhat and it was hoped that it would continue. However, the patient still complained of the pain.

Two months later a letter was received from the physician whom the patient consulted after leaving the Clinic, stating that the proptosis and pain had increased. Orbital cellulitis had been suspected and the eye was removed. No tumor was found in the orbit behind the globe and the enucleation did not relieve the pain nor explain the proptosis.

Case 2 (A308271), F. P., a girl, aged seven years, was brought to the Clinic March 6, 1920, because of protrusion of the right eye. She had been well until five weeks before, when she came home from school with slight swelling of the right lower lid, which steadily grew worse and spread to the upper lid. There was no definite history of injury. Within a few days after the onset of the swelling the chemotic conjunc-

tiva protruded between the lids, the eye was red and proptosed, but the cornea was clear and vision unaffected. Three operations, the nature of which was not known, were performed elsewhere within four weeks, with no relief. There was slight pain in the eye when the swelling first started, but later the pain was severe in the head, side, and arm. The child had lost weight, but her appetite was good; she had not vomited.

At the first examination, made five weeks after the onset of the swelling, there was marked exophthalmos of the right eye and some swelling in the right temporal region. The lower lid was hidden by the chemosis of the lower ocular and palpebral conjunctiva, which projected between the lids. The upper lid overhung the upper two-thirds of the proptosed globe, but the lower third of the cornea was exposed and ulcerated. There was no edema of the left lids and the left eye appeared to be normal. The right side of the soft palate was swollen slightly. The temperature was 100.2°, the pulse 140. The erythrocytes numbered 4,150,000, leukocytes 9,600, polymorphonuclear lymphocytes 71.5 per cent, small lymphocytes 22.5, large lymphocytes 5.5, and basophils 0.5. A roentgenogram of the head was negative, the blood count was normal, and except that the patient was weak and drowsy, an examination of her general condition was negative. The cornea had sloughed badly and was on the verge of rupturing. The swelling was thought to be due to tumor, and immediate removal of the eye and tumor was advised.

General anesthesia was used for the enucleation. The ocular conjunctiva below was much thickened, apparently infiltrated with tumor, and was freed from the eyeball with difficulty. The globe was adherent to Tenon's capsule, and when freed was found to lie in a shallow socket of tumor tissue which filled the orbit. The orbit was thoroughly exenterated, and the upper lid, which was infiltrated, was removed. The bony walls were intact; the tumor was apparently primary in the orbit. Recovery was uneventful. The patient was well two years later.

Microscopic sections, largely of young connective tissue, were taken from several parts of the tumor; lymphoid and polymorphonuclear cells were found scattered throughout. In one section small groups of fat cells were surrounded by the leukocytes; in other sections were muscle fibers in which the striations were well preserved, although there was much infiltration around the bundles (Fig. 1). A part of the lachrymal gland was also sectioned. Some of the secreting cells showed degenerative changes, and other acini had completely disintegrated leaving only fragmented cells. The stroma of the gland was generously infiltrated with lymphocytes (Fig. 2).

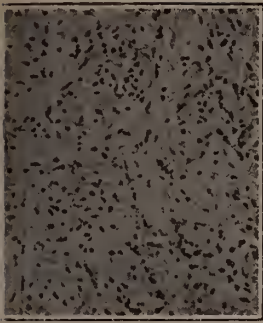


FIG. 1

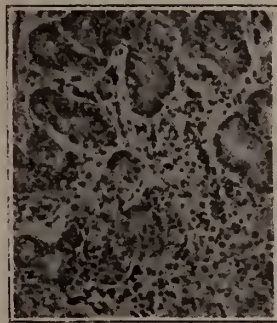


FIG. 2

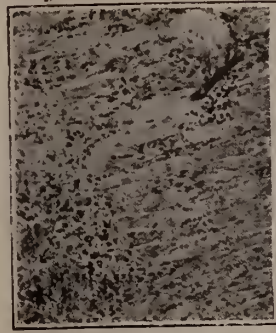


FIG. 3



FIG. 4

Case 3 (A420388), Mrs. A. P., aged sixty-four years, came to the Clinic March 15, 1923, five weeks after the left orbit had been exenterated elsewhere. For three months before the operation the patient had noticed diplopia when looking to the left. About one month before, a sudden, sharp shooting pain marked the onset of proptosis of the left eye. Soon after this, both lids became deeply discolored and a serous bloody discharge appeared in the culdesac. The patient was taken to the hospital and the orbit exenterated three days later.

Examination revealed the right eye to be normal. The left orbit was clean, and filling in with healthy granulations. Examination of the nose and throat was negative, but a roentgenogram of the accessory sinuses disclosed clouding of the left antrum and both frontal sinuses. The general examination was negative except for chronic myocarditis and constipation.

The pathologic report from the laboratory where the operative specimen was examined read as follows: "Sections through various portions of extra-orbital tissue show a great deal of extravasation of blood into the tissue substance, and a diffuse round-cell infiltration of an inflammatory character. In some portions there are islands of cells which look like epithelium and have the appearance of a metastatic epithelioma."

The two sections of tissue which were loaned to us for examination, revealed only hemorrhagic and leukocytic infiltration, which consisted largely of polymorphonuclear forms. The sections contained fat and striated muscle. The muscle fibers had not lost their striations, but there was much hemorrhagic and leukocytic infiltration among them. However, the infiltration was most dense around the blood vessels. Here there were also numerous endothelial cells which may have been mistaken for "metastatic epithelioma" (Fig. 3).

Group 3. Case 4 (A406278), Mr. W. H. D., aged fifty-three years, came to the Clinic September 29, 1922, complaining of protrusion of the left eye which had persisted for three months. The proptosis had appeared suddenly, reached its height in two months, and had re-

mained stationary. Diplopia also developed. The lower lid became swollen, and uncontrollable drooping of the upper lid developed. Pain occurred at intervals, but was never severe. The previous winter a bilateral epiphora had been troublesome, and the ducts were probed. Two weeks after the onset of the proptosis in the left eye, an acute dacryocystitis developed in the right lacrimal sac, ruptured and cleared up. There was no history of other eye trouble. Six weeks before coming to the Clinic the patient had had an operation on the nose to clean up sinuses which were thought to be the cause of the proptosis (Fig. 4).

On examination the right eye appeared to be normal. Vision of the right eye was 6/12, of the left eye 1/60. The left upper lid covered the globe, and was swollen and edematous. The lower lid also was thick and swollen. The larger vessels of the conjunctiva were tortuous and injected. The cornea was clear; the anterior chamber was normal in depth, and the pupil reacted promptly. The eye diverged, was depressed 0.5 cm., and could not converge. Motion was limited, and diplopia was present in all directions. There was no visible lesion of the fundus. Exophthalmometer readings were right eye 15, left eye 28. The lower margin of the orbit was barely palpable, and was encroached on by a spongy mass which was either a thickened lid or a neoplasm. A small mass just behind the upper inner orbital margin could be palpated. In an examination of the blood, 9,200 cells were counted, of which 5,300 were leukocytes. The differential blood count was lymphocytes 21.5 per cent, large mononuclears 4.0 per cent, transitionals 3.5 per cent, neutrophils 70 per cent, eosinophils 0.5 per cent, and basophils 0.5 per cent. A serum Wassermann reaction was negative. The patient gave a history of recurrent vertigo and intermittent chills and sweats of many years' duration, the cause of which was not determined. Except for atrophy of the right middle turbinate, the nose and throat examination was negative, but roentgenograms showed that both antrums were very cloudy. Examination by the neurologists did not disclose evidence of a brain tumor, or of extension of the tumor from the orbit. A diagnosis

of malignancy in the orbit was made, and the removal of the tumor, or exenteration of the orbit if necessary, was advised.

October 4, an incision was made through the left brow, and the superior and nasal periorbital were elevated. The palpating finger found a large firm tumor which extended from the globe to the apex and completely filled the posterior half of the orbit. As it was impossible to remove the tumor alone, the orbit was exenterated (Fig. 5).

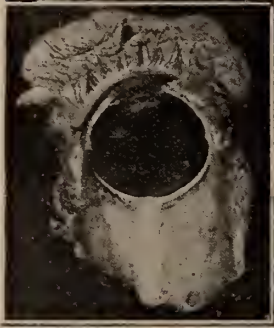


FIG. 5

and tumor, showed that the tumor was firm, white, conical in shape, and with its base firmly attached to the globe behind the equator. The optic nerve and the muscle cone were involved in the tumor which apparently had replaced the orbital fat. The periphery was more dense and fibrous than the central portion. The area within the muscle cone around the optic nerve was white and stippled with round, translucent yellowish areas 1 to 2 mm. in diameter. Microscopically the periphery consisted largely of dense fibrous connective tissue. The collagen fibers were large, abundant, and almost hyaline in appearance. Scattered liberally throughout this tissue were plasma cells and lymphocytes. Occasional small groups of fat cells were seen surrounded by numerous infiltrating cells and thin-walled blood vessels. Near the center of the section the mass contained more fat and numerous young fibroblasts, and the connective tissue was less dense than at the periphery. For the most part, the lymphocytes were collected into groups resembling follicles, and the plasma cells were scattered throughout the tissue between (Figs. 6 and 7). The size and distribution of these groups corresponded to the translucent dots seen in the center of the gross specimen. The extrinsic muscles were diffusely infiltrated with lymphoid cells, and practically all the small vessels showed endarteritic changes. In some instances these changes had progressed to obliteration. Except for scattered areas of lymphoid infiltration in the choroid, the globe itself was not significantly changed.

Case 5 (A403380), Miss E. T., aged thirty-

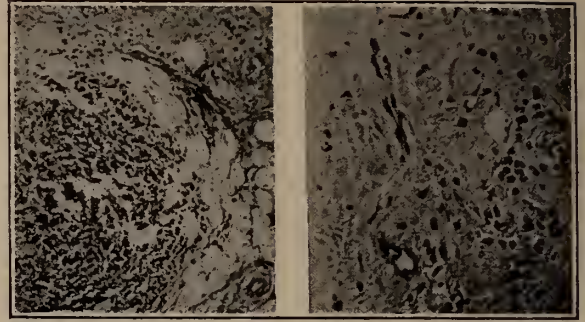


FIG. 6

FIG. 7

five years, came to the Clinic August 30, 1922, because of swelling of the lids of the left eye. The left upper lid had swollen nine months before; this subsided completely within three weeks, and there was no more trouble except one or two slight recurrences until ten days before her examination, when the left lids became markedly swollen and diplopia appeared.

On examination the right eye was found to be normal. The left eye was 4 to 5 mm. lower than the right. The left upper lid dropped and was edematous. On palpation a soft fluctuant mass was felt, extending from the inner canthus to the outer margin. There was some fullness of the lower lid and the ocular conjunctiva was thrown into folds at the outer canthus. There was no apparent limitation of movement of the eye, but diplopia was elicited on extreme elevation. The external examination of the globe was negative. Exophthalmometer reading for the right eye was 17, for the left eye 23. There was no lesion in the fundus (Figs. 8 and 9). The patient had an adenomatous thyroid which was not producing symptoms. She gave a history of glycosuria accompanying the first attacks of swelling, but on general diet not even a trace of sugar was found during the six days she was under observation in the hospital. No differential white count was recorded. The erythrocytes numbered 4,680,000, the leukocytes 10,500.

A diagnosis of orbital tumor was made and removal advised. An incision was made in the brow, and the periorbital incised at the orbital



FIG. 8

FIG. 9

margin. Immediately beneath it lay a soft, white, friable, non-encapsulated mass, 1.5 cm. wide by 1 cm. thick, which was removed. The wound healed promptly and the patient was dismissed from observation a week after the operation. Six months later she sent a recent photograph; there was no swelling, and only slight ptosis.

The microscopic section was very cellular. Lymphocytes predominated, but eosinophils were conspicuous, and there were also endothelial leukocytes. The wandering cells were not uniformly distributed, although they were present throughout the section, but were concentrated into fairly large groups between which were seen areas of young fibroblasts. Small groups of isolated fat cells were seen where the process had invaded fatty tissue.

Case 6 (A396255), Mrs. J. G. S., aged forty-four years, came to the Clinic in June, 1922, because of exophthalmic goiter. The left superior thyroid vessels were ligated, and two weeks later the gland was resected. There was no record of any eye symptoms at that time. In January, 1923, the patient returned, complaining of inability to raise the eyelids. This difficulty had appeared one week before, and diplopia, on looking upward, was noticed soon afterward.

On examination the right eye appeared a little more prominent than the left. Both upper lids were somewhat puffy, but not discolored. The bulbar conjunctiva on the temporal side of the right eye was slightly chemotic. The lateral movements of the eyes were good, but they could not be elevated above the horizontal plane. Otherwise the eyes were normal. The diagnosis of conjugate paralysis was made and observation advised.

The patient returned to the Clinic in April. At that time a soft mass could be palpated in the upper inner quadrant of the right orbit. Proptosis and exophthalmos of the right eye were marked. In the primary position the right eye was turned down and out. External ocular movements were normal except elevation. Binocular attempts to elevate showed a moderate amount of elevation of the left eye in all fields. The right eye moved up very slightly in the field of the inferior oblique. Exophthalmometer readings were right eye 23, left eye 17. The patient returned again in two weeks, saying that the tumor was growing and the vision of the right eye rapidly failing. The general appearance of the eye had not changed, but the patient complained of shortness of breath and was quite nervous. Examination by the neurologist revealed only paralysis of associated ocular movements. Examination of the urine and the Wassermann reaction were negative. The erythrocytes numbered 4,600,000, the leukocytes 8,000. No differential blood count was made. In view of the patient's general symptoms and

anxiety, it was deemed best to remove the tumor at once.

An incision was made just below the brow, and the periorbita incised between the superior and internal rectus muscles. A fairly large soft tumor was felt extending along the line of the internal rectus muscle. It was dissected free, excised at the apex, and the wound closed. Recovery was uneventful.

The operative specimen was a rounded, flattened, pinkish, fairly firm mass, measuring 20 mm. in diameter and 6 mm. thick. One side was covered by a thin glistening fibrous capsule, and some loose fatty tags were attached to it. The other side seemed to have been cut, and frayed ends of muscle fibers projected from the surface.

The microscopic sections were made up largely of degenerating muscle and fat tissue. The fiber bundles stained poorly, and some were vacuolated. The section gave the impression that a certain number of bundles were shrunken and smaller in diameter, and others had completely disappeared, leaving blank spaces. The tissue was infiltrated with lymphocytes which tended to collect around the blood vessels. There was also a smaller number of plasma cells and endothelial leukocytes. There were no signs of malignancy nor of an acute inflammatory process (Fig. 10).

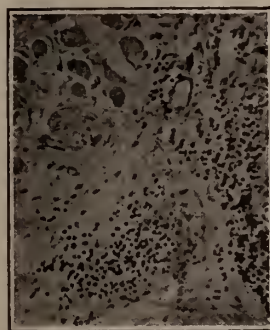


FIG. 10

Discussion

In none of these cases was the clinical course of long duration. In the majority, symptoms appeared about three months before they became severe enough to cause the patient to seek medical advice. In one case (Case 5), swelling of the lids had occurred nine months before, but soon subsided and the onset of the real attack occurred only ten days before the first visit to the Clinic. This agrees well with other cases reported, in which the duration of symptoms was from ten days to one year.

The disease was sudden in onset, or there was exacerbation of symptoms in most of the cases. In several the symptoms began insidiously and fluctuated for some time, then became severe and constant. In two of the cases (Cases 2 and 4) there was no prodromal period.

The etiology of the condition is not known. Marbaix and Van Duyse insist that the orbital neoplasm is only one expression of a general systemic disease in which lymphocytosis is a constant finding, and that the blood count will aid materially in the diagnosis. This was not

true in the cases here reported. The two instances in which the differential white count was recorded showed no evidence of lymphocytosis.

Lafon suggests recurrent hemorrhage of unknown origin as a cause. At first these are absorbed, but finally organization and proliferation of the orbital connective tissue forms a fibromatous pseudotumor. Case 3 may belong to this class; at least the sudden onset quickly followed by discoloration of the lids and bloody serous discharge, and the pathologic picture seem to point to hemorrhage.

Practically all the writers on the subject refer to infection as a direct etiologic factor, and this theory seems to fit the facts in several of our cases. In Case 1 the orbital swelling seemed to be associated with dental infection and a marked exacerbation immediately following the opening of this focus by extracting the teeth. The patient in Case 4 had been treated for six months for bilateral chronic purulent dacryocystitis, and roentgenograms also disclosed clouding of both antrums. Birch-Hirschfeld gives a full description of the classical pathologic picture of pseudotumor of the orbit, to which Case 4 corresponds. The orbital tissue studded with groups of lymphocytes resembling follicles with an outer ring of plasma cells, the endarteritic changes, and the absence of all signs of malignant growths form the characteristic picture. Case 6 also corresponds fairly closely to this description. Marked exophthalmos had persisted longest in these two cases, approximately three months. The pathologic picture in the other three cases studied varied considerably. In Case 2, in which several attempts had been made to drain a supposed abscess, the picture was greatly altered by the secondary infection. Hemorrhage was a complication in Case 3; there were also evidences of an acute rather than a chronic inflammatory process (many polymorphonuclear leukocytes). Sections from tissue in Case 5 showed the follicular arrangement of the lymphocytes, but the plasma cells were absent and eosinophils were conspicuous. The absence of plasma cells speaks for a shorter duration of the process, and in these last three cases marked symptoms had persisted only a relatively short time (three days to five weeks). This would lead one to the conclusion that the pathologic picture depends in no small part on the age of the lesion, and that these atypical cases are only younger pseudotumors.

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LEGENDS

Fig. 1 (A308271). Secondary polymorphonuclear leukocytic infiltration (probably due to the operative interference) of the new formed connective tissue. (X 200.)

Fig. 2 (A308271). Lymphocytic infiltration of the lachrymal gland. (X 200.)

Fig. 3 (A420388). Infiltration of muscle fibers with hemorrhage and concentration of the leukocytic infiltration near the blood vessels. (X 200.)

Fig. 4 (A406278). Patient when first seen.

Fig. 5 (A406278). Longitudinal section of gross specimen.

Fig. 6 (A406278). Follicular arrangement of the lymphocytes in the central portion of the tumor mass near the optic nerve. (X 100.)

Fig. 7 (A406278). Denser peripheral portion of mass consisting of fibrous tissue with infiltration of plasma cells. (X 200.)

Fig. 8 (A403380). Before operation.

Fig. 9 (A403380). Six months after operation.

Fig. 10 (A396255). Degenerating muscle fiber bundles. Follicular arrangement of lymphocytes with peripheral sprinkling of plasma cells. (X 200.)

THE RESULTS OF THREE HUNDRED AND NINE GOITRE OPERATIONS WITH DESCRIPTION OF THE AUTHOR'S OPERATIVE TECHNIQUE.*

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THERE is perhaps no problem in operative surgery to which has been given more thought and endeavor over a greater period of years than that of the extirpation of the thyroid gland for goitre. That this work has been abundantly rewarded, both from the standpoint of operative mortality and the effectual relief of symptoms, I think there can be no dispute.

The surgical treatment of adenoma, cysts and colloid hypertrophy has been successfully carried out for many years. Only in comparatively recent times and very largely due to the work of the American Surgeons has the surgery of exophthalmic and toxic goitre been placed on a satisfactory basis. This work has been directed mainly along two lines, first, the development of a technique which has enabled us to show a very

*Read at the Annual Meeting of the Medical Society of the State of New York, at New York City, May 23, 1923.

low mortality rate, and, second, toward effecting a more complete and permanent relief of symptoms. The percentage of cures accomplished far surpasses that of any other method employed in the treatment of exophthalmic and toxic goitre.

During a period of approximately 10 years, from 1912 to 1922, I have operated upon 309 patients for goitre at the Albany Hospital. They were divided as follows:—Exophthalmic goitre—83, Adenomatous goitre—180, Colloid hypertrophy—42, Carcinoma—2, Acute Thyroiditis—3. There were 9 deaths in this series showing a mortality rate of 2.9%. In the 83 cases of exophthalmic goitre there were 6 deaths, a mortality rate of 7%. In the 180 cases of adenomatous goitre, nearly all of which presented toxic symptoms of varying degree, there were 3 deaths, a mortality rate of 1.6%. In the cases of colloid hypertrophy, carcinoma and acute thyroiditis, there were no deaths.

Taking up the immediate cause of death. In the three deaths out of 180 patients operated upon for adenomatous goitre, one died of pneumonia on the 2nd day and two of pulmonary oedema on the 2nd and 5th days respectively after operation. In all three cases the goitre was of long standing, 20, 30 and 50 years and of very large size. The patients' ages were 58, 59 and 60 years.

In the six fatalities out of 83 cases operated upon for exophthalmic goitre, four died immediately following the operation or shortly after of cardiac failure, one of acute mania two days after operation, and the other, an enfeebled woman of 50 years, died two weeks after operation of pneumonia. In two of the cases preliminary ligation had been done, one three weeks and the other three months previous to the thyroidectomy.

All of the nine deaths occurred in patients in the late stages of the disease where the progression had been such as to place them far beyond the time when any operative procedure could be undertaken with even a fair expectation of success.

In this series of 83 cases of exophthalmic goitre there were 7 preliminary ligations, 3 bilateral and 4 single. In 9 cases the thyroidectomy was done in two stages from three months to one year apart. In each of three cases three operations were done, that is, incomplete relief of symptoms required the removal of some remaining gland tissue at a third operation. Of four cases in which a unilateral operation was performed and which did not return for completion of the work, two have died of the disease and two are incompletely relieved of symptoms.

All of these cases have been followed for a period of 4 months to several years. In all instances when a sufficient amount of gland was removed there was a prompt disappearance of

all symptoms of hyperthyroidism, a rapid regaining of weight and where degenerative changes in the heart and other organs had not progressed too far, there was a complete and perfect return to health. It is evidently quite impossible to restore completely to normal a badly damaged heart or kidneys, but it is truly amazing at times to what degree these organs will return to their normal functions after the cause of their impairment is thoroughly removed.

In none of the cases in this series have there been any symptoms of hypothyroidism. In only one instance was there evidence of parathyroid deficiency. This was in a case of recurrent adenoma in which it was apparent that the surgeon had removed one entire lobe and the isthmus fifteen years previous. The subtotal thyroidectomy of the remaining side disturbed the function of the remaining parathyroids. The symptoms here were only of a few weeks' duration. The patient has remained well ever since.

As we review the early attempts of extirpation of the gland for the various forms of disease, we find the greatest difficulty was met in the control of hemorrhage, in fact, this alone often proved an insurmountable difficulty. The same problem of the proper control of hemorrhage is still today one of the chief concerns of the operator. It matters not what the experience of the surgeon may be, he will at times find that his skill is taxed to the utmost in some of the more difficult cases in maintaining a perfect control of hemorrhage. The improvement in operative results that have naturally followed have been due largely to the improvement in the technique of operation.

It seems to me that operators in this field of surgery are confronted by two very important problems. This first has to do with the safety of whatever operative procedure may be undertaken and the second with the completeness and permanency of relief afforded.

One phase of this work, which it would appear has not been given due consideration, is that of the permanency of relief that may be expected in a given case. In the development of our thyroid work at Albany, an attempt has been made for a number of years to so perfect our operative technique that a more complete and permanent relief of symptoms might be obtained.

After a study of the results in our early cases of exophthalmic goitre, I was convinced that the frequent failure to obtain complete relief of symptoms was due to the removal of an insufficient amount of thyroid tissue. Up to ten years or more ago few surgeons attempted the removal of more than one lobe of the gland, even for the relief of exophthalmic goitre, but when this proved to be inadequate for a complete and permanent relief of symptoms, the isthmus and perhaps a portion of the remaining lobe were removed. This method, however, presented a

number of very serious objections. In the first place, in the complete removal of so large a portion of the thyroid gland, the parathyroid glands were frequently removed or their circulation disturbed with resulting tetany. The portion of gland remaining frequently underwent hypertrophy and with this there was a return of symptoms, more or less complete.

In the light of our present-day experience, I think we are able somewhat to revise our ideas with reference to the total amount of gland tissue which is necessary to sustain life and health. I believe that in the past the tendency has been in operating for the relief of exophthalmic goitre to leave too much rather than too little thyroid tissue and that this alone is responsible for many of the failures reported for the adequate and permanent relief of symptoms. It would be very desirable indeed if some accurate means could be devised to determine the exact amount of thyroid tissue required, but so many factors enter into the solution of this problem that it would be difficult, if not impossible, to attempt to formulate any general rule which would serve as a safe guide in determining the amount of gland tissue which should be left in a given case. Again I believe that not so much depends upon the total amount of tissue left as upon its distribution and blood supply. For instance, if one-third or one-fourth of the total amount of gland tissue remains as a portion of one lobe, with its undisturbed blood supply, conditions are all in favor of an hypertrophy of this portion of the gland tissue taking place and we have in due time a return of symptoms.

If, on the other hand, the same amount of gland tissue is left as small pieces of tissue distributed throughout the entire site of the gland, there is no likelihood whatever of hypertrophy of the remaining gland tissue taking place.

In carefully reviewing my cases I am impressed by the fact that where there has been a failure to afford complete and permanent relief it has been due to the leaving of comparatively large portions of thyroid tissue with undisturbed blood supply either at the upper poles, in the isthmus or lateral lobes. In none of my cases operated upon in such a way that only small portions of tissue were left attached to the posterior capsule has there ever been any evidence of hypertrophy or return of symptoms, so that I feel the success of the operation in this respect depends not so much on the amount of gland tissue left as upon its distribution and the severance of its normal blood supply.

In reviewing my cases of adenomatous goitre I have been impressed with the large percentage of these cases in which the condition of adenoma was bilateral. In other words, it has been very rare indeed where a patient presented a definite adenoma in one lobe that I have not been able to find at operation, even where its presence

could not be determined by examination of the patient before operation, the presence of an adenoma in the other lobe. The importance of this condition was impressed upon me by the number of cases which presented themselves for a second operation where a tumor had formerly been removed from one lobe and the other lobe left undisturbed. During the past few years we have given particular attention to this phase of the problem and have found that in over 90% of cases where a tumor was present in one side, a similar condition was also found in the other lobe. It is, therefore, our practice now to investigate at operation the condition of both lobes, even though apparently only one lobe is involved, and we are usually rewarded by finding a similar condition in the other side. I believe, therefore, that adenoma of the thyroid is essentially a bilateral condition.

The operative procedure, which in my mind has enabled me more carefully and adequately to control hemorrhage and at the same time permit me to gauge the amount of thyroid tissue which should be removed is as follows:

Under light ether anesthesia or combined local and ether anesthesia, the usual collar incision is made through skin and platysma. The pre-glandular muscles are separated vertically and retracted. Only in exceptional cases are they divided. The capsule is freed from the surrounding structures and the gland is clasped with special forceps and drawn forward well outside the wound. It is then held by an assistant and sutures are passed deep into the gland itself, just within but close to the posterior capsule. The upper and lower poles are first sutured and in a similar manner the suturing is carried entirely around the capsule. The removal of the gland is then begun. As the dissection progresses, the deeper portions of gland tissues are sutured in similar manner. Thus all blood vessels are effectively secured before they are cut. In dissecting out the gland great care is used to leave only a thin layer of thyroid tissue, well distributed, attached to the posterior capsule. A thin layer of thyroid tissue is always left over the trachea. This proves of decided advantage to the patient in that it prevents tracheal and laryngeal symptoms following the operation. Some of the tissue that remains and is included in the sutures degenerates and is expelled with the drainage.

As before stated, the great consideration in any operation for the relief of goitre is the perfect control of hemorrhage. Loss of blood, even if comparatively slight, adds extremely to the operative risk, particularly in toxic and exophthalmic cases. The operation which I have so briefly described has this in view as its main object. It has proven, however, to possess other equally important advantages. In maintaining at all times a comparatively dry wound it enables

the operator to gauge better the amount of gland tissue removed and to distribute more evenly the tissue which is left behind. It practically eliminates the chance of injury to the recurrent nerves. Nerve injury, I believe, is more frequently caused by crushing with hemostats or the inclusion of the nerve in a suture or ligature than by actually severing it during the dissection.

By a more thorough exposure of the operative field and by maintaining a dry wound at all times it permits the operator to avoid one or more parathyroid glands which are often found imbedded in the thyroid tissue. It likewise enables the operator to terminate the operation at almost any moment, if the condition of the patient demands it, without the necessity of prolonging it even until ligatures and sutures are placed for the control of hemorrhage. In other words, hemorrhage is controlled first and when this is effectually done, the gland, or such a part of it as is desired, is taken out. An objection might be raised to the inclusion of masses of gland tissue in the sutures. Quite to the contrary the method has proven of great advantage. It eliminates any chance of secondary hemorrhage, a fact strikingly borne out in this series of over 300 cases, in which this complication did not arise. In exophthalmic hypertrophy the amount of connective tissue is so slight, the gland and the blood vessels so friable, that simple ligation of the vessels is inadequate to control bleeding safely. It is far better, I believe, to control hemorrhage before than after the removal of the gland.

From this study of the above 309 cases of goitre operated upon the following conclusions may be drawn:

1. In the non-toxic types the mortality rate is practically nil.
2. Only in the toxic and exophthalmic goitres, when the disease has progressed to the late stages, is the operative risk great.
3. The relief of toxic symptoms is in direct ratio to the amount of gland removed.
4. A return of symptoms is evidence of an hypertrophy of some of the remaining gland tissue.
5. Adenoma of the thyroid is essentially a bilateral condition. Only at operation in many instances can the presence of an undeveloped adenoma be discovered.
6. Hemorrhage, if controlled before the removal of the gland, will permit a more adequate removal of gland tissue and will by the avoidance of the deep clamping of vessels eliminate the danger of injury to the recurrent nerves.
7. Injury to or the removal of the parathyroids may usually be avoided by maintaining at all times a dry wound.
8. Secondary hemorrhage can be avoided by adequately suturing all vessels before the removal of the gland.

PRECISE DIAGNOSIS OF CARCINOMA OF THE RECTUM.*

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STATISTICS indicate that of every twenty-five cancers of the body one is in the rectum or recto-sigmoid and that of every five intestinal cancers, four involve this segment of the large bowel. This being true, the early recognition and precise diagnosis of carcinoma of the rectum is of paramount importance. Yet, in a study of large series of cases, we find that from six to eight months is the average period of time from the onset of the first symptoms till the patient reaches the surgeon.

In the first instance the fault lies in the very nature of this insidious disease. Unlike external tumors the growth is concealed and the early symptoms are not alarming, so its victims may go many months till forced by the late symptoms of ulceration or obstruction to seek medical relief.

After consulting the physician, the responsibility is his of making an examination that will confirm or exclude malignancy. Failure to make a thorough, or in many instances any, examination prolongs the period before the patient receives adequate treatment and, in a discreditable number of cases, a minor operation is still performed when the cancer is within reach of the operator's finger.

This paper is based upon 108 cases of carcinoma of the rectum or recto-sigmoid, all of which the writer had examined carefully and operated upon many of them. There were 80 males and 28 females.

Age. Although 61 or 57 per cent. of the total cases fell in the "cancer age" of 40 to 60 years, 20 or 18 per cent. were over 60 years and 16 or 15 per cent. were under it, one being 19 years. So, while persons above 40 years are more prone to carcinoma, age *per se* is not a diagnostic point in an individual case.

Weight Loss. Loss of weight averaged eighteen pounds in this series. One patient had lost sixty pounds but several patients had not lost any weight. Emaciation is, in fact, a late symptom of carcinoma and maintenance of weight for several months after its onset does not exclude the disease.

Anemia and weakness develop in the later stages of the growth and are signs of an advanced process.

Wassermann Reaction. The Wasserman test of the blood should be made in every case of tumor, stricture or ulcer of the rectum. It was positive in seven cases of this series. The simultaneous occurrence of syphilis and cancer

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is, therefore, not unusual and warns us to be on our guard lest we mistake cancer for syphilis of the rectum as well as the development of cancer on a luetic soil.

Pain. Exquisite pain is a cardinal symptom of epithelioma of the anus but, in general, pain is not pronounced in rectal carcinoma as usually situated unless the growth is very low, or until it has extended widely, or has caused marked obstruction. There is, however, frequently a feeling of fulness in the pelvis, of pressure and obstruction in the rectum and often colic at stool.

The onset was gradual in 75 cases and sudden in 33.

The *Duration of Symptoms* had averaged 6 months for the males and 7.8 months for the females. Three weeks was the shortest period, but in several cases it was 18 months. Meanwhile a few of these patients had not consulted a physician but the majority had done so and the condition had been diagnosed as "stomach trouble," indigestion, constipation, chronic colitis, "bloody dysentery," tuberculosis of the rectum, bleeding polyp, anal fissures (3 cases), hemorrhoids, rectal fistula, carcinoma of the prostate and retroversion of the uterus.

Hemorrhoids was the favorite diagnosis and several patients had been operated upon only recently for this condition, and two for anal fissure, although the growth was then present and palpable.

What, then, are the symptoms of beginning carcinoma of the rectum and recto-sigmoid? Careful inquiry in 108 cases elicited as the "first symptom" constipation in 68 or 63 per cent.; second, bleeding or "cancer diarrhea" (a discharge of blood, pus and mucus) in 35 or 32 per cent., and pain in the remaining 5 per cent. In the latter it should be noted that the anal canal was involved. Bowel action was stated as "regular" in six cases but the great majority had obstipation although there were frequent passages of discharge (cancer diarrhea). Indigestion, often accompanied by nausea, is an almost constant early symptom.

When the ulceration and secondary infection of the second stage develop, frequent foul discharges of mucus, blood and pus occur, constituting the so-called "cancer diarrhea" although the patient is still really constipated. Finally the late symptoms of intestinal obstruction may supervene.

Anemia, emaciation and weakness are not characteristic of the first stage but are progressive in the second and third stages when the cachectic patient himself more than suspects the true nature of his malady and is probably hopeless for curative surgery.

There is, in fact, no one symptom of early carcinoma of the rectum and sigmoid colon that is pathognostic, but an attack of severe constipa-

tion in a person with normal bowel action, desire to stool in the morning on rising with no result or only the passage of flatus and a little mucus, probably blood-streaked, or abnormal rectal discharge, and a vague ill-defined feeling that something is radically wrong in the lower abdomen, or a feeling of obstruction in the rectum form a symptom complex that is present in nearly every case of early carcinoma of the sigmoid and rectum. When such a complex is elicited by careful inquiry it becomes our duty to make a thorough examination. Failure to make the examination, or to see that it is made, is a serious dereliction of duty.

The physical examination is both general and local. If the patient gives a history of "cancer diarrhea" and marked obstipation, is emaciated, weak and anemic, he is probably already in the stage of terminal pathology and not of surgery. Jaundice, ascites and a tumor of the liver or spleen indicate hopeless metastases. The sigmoid colon is often more prominent than normal and the masses sometimes felt in the left lower quadrant of the abdomen, and higher on the left side, usually prove to be scybela. If the inguinal glands, which receive the lymphatic drainage below the ano-rectal line, are involved, the case is probably hopeless for curative surgery.

The local examination includes palpation, procto-sigmoidoscopy, biopsy and the X-rays. In women a vaginal examination should be made first to determine the position of the uterus and the condition of the cul-de-sac. As a rule digital examination of the rectum is made with the patient in the Sims position, but a growth not otherwise palpable may sometimes be felt with the patient in a squatting posture or under general anesthesia by making counter-pressure on the abdomen.

In this series of 108 cases the tumor was palpable in 97 so that in only 11 cases or 10 per cent. was the proctoscope essential to determine the presence of a growth at a higher level. The tumor involved the anterior rectal wall in 39 cases, the posterior wall in 32 cases, was lateral in 7 and annular in 30. The growth felt movable in 60 cases and fixed in 48. In the majority the neoplasm was ulcerated and in ten cases infiltrated adjacent organs. The segment of bowel directly involved in the growth varied from five to ten cm. in length. These details of position, size, mobility or fixity and ulceration of the growth, involvement of adjacent organs and metastases are all prime factors of prognostic import.

For lesions beyond reach of palpation, the modern pneumo-electric procto-sigmoidoscope becomes an elongated finger with a human eye. By this instrument of precision the examiner can readily inspect the entire rectum and anal canal

and in approximately 75 per cent. of cases the distal loop of the sigmoid colon.

No anesthetic is employed, but skill in passing the instrument and correct interpretation of the findings are to be acquired only by extensive experience. The calibrated tube of one-half inch diameter can usually be passed through a stricture or beyond a tumor to the normal mucosa above, thus determining precisely the length of the process. Constriction by the growth prevented the passage of the tube in only twelve cases of this series.

The practical utility of the sigmoidoscope is well illustrated in a recent case. Mrs. R., aged 57 years, was referred for constipation and slight daily rectal bleeding. During the past two years she had been under regular treatment for hypertension, hyperchlorhydria, constipation and hemorrhoids. Examination disclosed no actively bleeding hemorrhoids and palpation of the rectum was negative. The sigmoidoscope, however, showed an ulcerated neoplasm constricting the recto-sigmoidal angle, a section from which gave the positive diagnosis of adenocarcinoma. Four days later I successfully removed the segment of rectum and sigmoid colon involved in the growth by a difficult combined operation. How much less risk would there have been for the patient from the operation itself and the liability of recurrence had a radical operation been performed months earlier?

This raises the question of biopsy in accessible growths of the lower bowel. Frank carcinoma that can be seen or felt is so characteristic in its appearance and feel to the experienced examiner that biopsy for diagnosis is unnecessary in these cases. There are, however, certain cases of tumor, stricture and indurated ulcer that baffle the diagnostic acumen of the most experienced. I know of two instances at least in which the rectum was removed for presumable carcinoma but careful histologic study of the specimen demonstrated only chronic inflammation. Hence, in these cases of doubtful diagnosis I believe in and practice biopsy to solve the problem at once. Some years ago I devised a specimen forceps for use through the proctoscope which is practical and very satisfactory. When suitable instruments are employed, biopsy may be performed quickly and without pain or annoyance to the patient in the course of a routine office examination.

In this series biopsy was performed in 32. The diagnosis was adenocarcinoma in 24 cases, epithelioma in 4, colloid carcinoma in 2, malignant adenomatous polyp and angeosarcoma, each one case.

X-rays. There is a growing tendency in the profession, when the symptoms indicate recto-sigmoidal pathology, to refer the patient at once to the roentgenologist. This is, in my opinion, a

step backward in diagnosis in substituting in an accessible field the indirect laboratory method for direct palpation with the experienced finger and inspection with the intelligent eye. For diagnosis of lesions of the rectum, radiograms are as a rule not only unnecessary but often misleading. Palpation and proctoscopy, with a biopsy in certain doubtful cases, furnish all the precise data required. For lesions of the distal sigmoid, in the 75 per cent. of cases in which the tube will negotiate the recto-sigmoidal angle, the sigmoidoscope supplies accurate and reliable information. Nevertheless, in all cases of tumor, stricture and indurated ulcer of the rectum without urgent symptoms, as obstruction, radiograms should be obtained to detect, if possible, other or similar lesions, sometimes present, beyond reach of the tube.

Differential Diagnosis. (A) From other rectal lesions.

Anal Fissure. At its onset epithelioma of the anus closely simulates a painful fissure or irritable ulcer of the anus both in its symptomatology and appearance. Bidigital examination, however, detects the characteristic deep, hard induration of epithelioma and, if there is grave doubt, biopsy should be done immediately.

Hemorrhoids frequently accompany cancer of the rectum and too often are diagnosed as the only lesion. Hemorrhoids should never be treated before rectal examination to eliminate other pathology. This is the only safe rule to bar error.

Thrombosis of the rectal veins usually occurs in men with sclerosed vessels. The veins may rupture and bleed profusely and to palpation suggest a neoplasm. Proctoscopy is our surest means for their recognition.

Large non-specific indurated ulcer of the rectum may so resemble a beginning carcinoma to inspection and palpation that only a biopsy can differentiate it as in the two cases I have noted.

Chronic Inflammations. Of the chronic inflammations, syphilis manifests itself here either as a tertiary ulcer or its sequel, a stricture. A history of infection and a positive Wassermann reaction is most helpful in deciding, if we remember that the lesion may also be carcinoma in a luetic.

Tuberculosis, the other chronic inflammation, may be present here as (a) a tuberculous ulcer of the rectum, (b) a tuberculoma or hyperplastic tuberculosis, which in all respects resembles a protuberent carcinoma and can be differentiated only by biopsy, (c) tuberculous mesenteric glands, which, before suppuration, feel like a rectal tumor but tuberculosis will be found elsewhere in the body, and (d) plastic tuberculosis of the cul-de-sac of Douglas.

Mucous Polyp. This is a large, solitary histologically benign growth usually located in the distal sigmoid. It produces bowel and general symptoms like carcinoma but can be differentiated readily by sigmoidoscopy.

Multiple Adenomata. This is a condition in which literally thousands of small growths, some pedunculated but the majority sessile, stud the mucosa of the colon and rectum and are to be recognized by procto-sigmoidoscopy. If neglected, multiple adenomata usually undergo malignant change into adenocarcinoma, therefore early recognition and appropriate treatment are essential.

Diverticulitis practically never occurs in the rectum but is relatively common in the sigmoid. The symptoms of acute diverticulitis are those of acute appendicitis transferred to the left side, but chronic diverticulitis with slow infiltration and thickening of the bowel wall and mesentery, resembles malignant disease. Aside from laparotomy, radiograms are of the greatest aid in its diagnosis. In the days before the advent of the X-ray and before pathological examination of all specimens removed at operation was a routine measure, many cases diagnosed at laparotomy as carcinoma of the sigmoid, which receded after colostomy, were undoubtedly chronic diverticulitis.

(B) Differential diagnosis from diseases of other organs. Primary Carcinoma of the prostate.

Rectal palpation detects the asymmetrical enlargement, nodular, hard surface and fixation of the gland, and usually the mobility of the rectal mucosa opposite. The urologic symptoms will, of course, help to differentiate.

Cervix Uteri. When the uterus is antiflexed or antiverted, the first thing usually felt per anum in women is the cervix and curiously enough it has been mistaken for a rectal tumor. Vaginal examination will, of course, set us right.

Douglas' Cul-de-sac. Abnormalities felt in this situation require careful examination, for not only do acute but certain chronic conditions manifest themselves here. An important one of these is implantation carcinoma in which cancer cells, detached from a tumor at a higher level in the peritoneal cavity, gravitate to the cul-de-sac, there engrafting themselves on the peritoneum, and form an induration described by Bloomer as a "rectal shelf." When this is felt per anum we know that the tumor is secondary and that radical surgery is contraindicated.

Plastic tuberculous peritonitis may, by palpation, resemble carcinoma in the cul-de-sac, but is to be differentiated by the history, symptoms and other physical signs.

Regarding displacement of the uterus, it seems to me there should never be a doubt as to its

position if it cannot be determined by bimanual examination. The uterine sound, introduced aseptically, is a reliable guide of its position and, if the corpus uteri is anterior, the tumor felt per rectum is not the fundus of the uterus but may be a tumor of the uterus, as a fibroid, a growth or inflammatory process in the cul-de-sac or a tumor of the rectum, the latter to be recognized by proctoscopy.

In conclusion, failure of early recognition of a tumor of the rectum or recto-sigmoid is not due to a lack of knowledge but to a failure to apply the knowledge we possess at the earliest moment.

The precise diagnosis of carcinoma is to be made by a general survey and analysis of the case, by our natural senses of sight and touch and by the employment of instruments of precision.

LIMITATIONS IN THE RADIO-THERAPY OF CANCER*

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THE period of uncritical optimism as regards the capacities and present possibilities of radiation therapy is rapidly passing. The daily press no longer announces that cancer has ceased to be a menace to the human race because of the wonderful curative effects of a few dollars' worth of radium. The feeling is even widespread in the profession that radiation methods are useless. This is perhaps merely a reaction following over-enthusiasm, but there is no question that a long period of careful scientific investigation, both laboratory and clinical, must precede any real advance from the present situation. Slow and sure is a good rule, and I have therefore thought it might be profitable to the members of the Surgical Section to hear a short review of some of the limitations now proscribing our use of the radiation methods.

In general the limitations of treatment by radiation, assuming the availability of ample radium and modern X-ray apparatus, are in part physical, in part those dependent upon the general sensitiveness of the patient to radiation, in part upon the anatomical relations of the tumor, and in part upon by far the most important factor, the resistance of the tumor to radiation.

A. The physical limitations are obviously those governing the supply of a sufficient amount of energy to the neoplastic structures to be influenced, for there is no evidence that a cure of cancer can be produced, except by the destruction of the cells of the neoplasm itself. Unfortunately there is not the slightest evidence that any immunity exists against cancer, nor can immunity to an established tumor be induced by any

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process with which we are at the present time familiar. The connective tissue sclerosis produced by heavy raying certainly does not destroy the few remaining cancer cells, as anyone who has had experience with radiation knows, for recurrences of tumors belonging to the relatively benign basal cell group may be seen following radiation after a period of eight or ten years. If the connective tissue had a destructive action it surely should have been effective in this time.

The setting-free of a sufficient amount of energy, whatever that amount may be, in accessible tumors is most easily done by the insertion of radium, because in this instance the tumor itself acting as a filter to a limited extent protects the rest of the body from the destructive action of the physical agent. The users of radium are still far from agreement on the preferable methods for application. Whether glass capillaries containing emanations shall be used, or whether the emanations or the radium salts shall be screened by a considerable amount of metal is still a matter of discussion, and the preferable technique can only be settled by prolonged clinical observation of patients treated by both methods. In this instance no normal tissues need necessarily be traversed by the rays, except those which escape from the tumor itself, hence the damage to the healthy tissues is apt to be less than where a beam of X-ray has passed through healthy in order to reach diseased material. Filtration of radium alters only the proportion of the various rays which escape from the container; nothing can be done to modify these rays themselves. In X-ray, on the other hand, by changing the voltage and the filtration, we change the average wave-lengths of the X-rays produced, and thus have some control over our type of radiation. There is as yet no evidence to show whether one wave-length of X-ray or the gamma rays of radium is more effective in killing tissues than another. The usual assumption is that the longer wave-lengths are more effective, but this has been contradicted with the same degree of dogmatism as the converse statement. The crucial experiment is yet to be made. In all probability it is merely the question of the amount of energy set free in the individual cell which determines the lethal action. As the dose required to kill a tumor cell runs parallel with the dose required to kill the epidermis, the advantage of high or low voltage is purely a physical one, tumors which are superficial being easily reached by low-voltage X-rays, while those which are deep in the body require a shorter wave-length in order to get a proportionately sufficient dose into the depths. The question here is simply one of physics, and not of biology.

The only question with X-ray is to use sufficient voltage to obtain X-rays of such a short

wave-length that a sufficient dose may be placed in the tissues without excessive skin injury. Otherwise there is no advantage in using high voltage. The practise at present tends, even in Germany, toward the abandonment of the high voltages originally tried, for as good results are evidently obtained with considerably lower electrical pressure and a corresponding prolongation of life of the X-ray tube. Apparently no especial advantage is gained in practise by the use of voltages over 200,000. Many workers are satisfied to use from 160,000 to 180,000, reserving the 200,000 for deep tumors which have to receive especially large doses. These can be administered more effectively when the wave-length is shorter, under optimum conditions from 40 to 50 per cent of the skin dose reaching a depth of 10 cm. The increased output at the higher voltage, and there is nearly twice as much X-ray produced by a tube running at 200,000 as at 170,000, when a copper filter is used, is neutralized largely by the extremely short life of the tube with the higher voltage, thus increasing the cost of the treatment. There are apparently no especial clinical differences in the result.

B. Every radiologist is familiar with the fact that there are certain persons who bear radiation badly, even though they have not developed cachexia from the presence of their neoplasm. The explanation of the condition is not clear. It has nothing to do with the inhalation of the ionized air, nitric oxide or ozone produced by high tension discharges. It is usually often merely an exaggeration of the symptoms of radiation sickness due to tissue destruction which regularly follows heavy treatments, and it usually occurs in neurotic persons of both sexes, and is most marked when the radiation has to be done to the upper abdominal region. There are, however, people who cannot stand even moderate doses applied to the chest, and some who suffer from severe and even dangerous radiation sickness when the lower abdomen and pelvis are radiated. Deep therapy is absolutely impossible in such persons, as their general condition rapidly becomes worse, while the nausea and general distress is so severe that they will not return for treatment. If the tumor is superficial and at all localized, it is possible to treat some of these patients with radium, but some are even sensitive to the local effects of radium. Cachectic persons, as is well known, bear deep radiation very badly, and, as a rule, should not be treated except very lightly and then only for temporary palliative effects and the psychic benefit that they obtain from the fact that they are being treated. Heavy doses may result in the death of the patient within a few weeks with progressive anemia, nausea, and the development of a condition which resembles uremia in some of its clinical aspects, but

without the chemical changes in the blood seen in that condition. A portion of the difficulty is unquestionably due to the fact that cachectic patients have a bone marrow which owing to prolonged strain has ceased to function with any efficiency, and the scattered radiation which strikes a large portion of the body despite the most careful screening injures this low grade bone marrow still more. The amount of this scattered radiation is astonishing, for if a person is being treated with a well screened narrow beam of X-ray, enough radiation is scattered laterally to give an image of the bones of the hand when the fluoroscope is directed toward the patient and entirely out of range of the primary beam.

C. The third limitation of radiotherapy is the site of the tumor in relation to other important organs of the body. Thus, for example, carcinoma of the stomach or the liver is usually not amenable to deep radiation, for the reason that it is almost impossible to avoid injury to the pancreas, adrenals, and sympathetic system. The damage which occurs in the liver when hepatic or gastric tumors are rayed is often serious, and the patients do not, with rare exceptions, do at all well. Even when the beam is well screened and directed away from the adrenals the scattered radiation certainly affects these organs. If they are rayed with a direct beam, serious injury and sometimes death occurs. In a number of instances skin pigmentation and the symptoms of Addison's disease have occurred following moderate radiation of the adrenal. Death has also been reported where intensive radiation has been carried out.¹ It is possible by directing the beam forwards and upwards through the stomach to administer only a slight dose to the adrenal, but the result in carcinoma of the stomach, even with the most careful distribution of the radiation, is so unsatisfactory and the general depression produced is so great that it is usually wiser not to attempt even palliative radiation on this region. In the lower abdomen and pelvic region it is much easier to give heavy doses, some persons being able to stand enormous quantities of X-ray, without the disturbance of their general condition. Radiation of tumors of the scalp, of the brain, of the nose and throat, implies certain difficulties, such as the necessary alopecia which inevitably follows sufficient dosage, danger of coincident damage to the thyroid, pituitary and salivary glands. It may be stated positively that only palliative results can be obtained. Where radium can be inserted the palliative results are better, but effective treatment can be carried out only in certain types of tumor. The use of buried radium in lingual and tonsillar cancer has resulted

in excellent and in some rare instances prolonged palliation, though it is impossible to state at the present time whether these benefits will be permanent. Carcinoma of the lip confined to the mucous membrane can be cured locally by large doses, if there is no involvement of the regional nodes, but the practical difficulty is to discover whether these nodes are invaded or not so that some operators believe in excising these nodes while treating the lip by means of radiation. It is a far wiser procedure to excise both the lip and the nodes, because statistical observations have not been able to show for radium or X-ray as satisfactory results as have been obtained by surgery.

All tumors of the extremities can be rayed with full dosage, and beneficial palliative results obtained if the tumors are radio-sensitive. Serious constitutional symptoms do not appear after such treatment, but the local change is apt to be great. Some clinics are raying even operable sarcomata of the extremities, claiming that the operative results are so poor that radiation may be substituted. In other words, apparently, if one method gives poor results, it is proper to substitute one the results of which no one as yet knows.

D. The fourth limitation of radiotherapy lies in the biology of the tumor. As yet we know but little of the radiological biology of human tumor cells. Animal experiments have done much to clarify the situation, and have shown that animal tumors, even if they are of the same morphology, vary greatly in their resistance to radiation. It has also been shown that no matter what form of radiation or filtration is used, the same tumor is killed by the same multiple of a skin erythema dose.²

Thus radium offers no therapeutic advantage over X-ray, except for the fact that it can be inserted into the substance of the tumor, and that owing to the inverse square law, the general damage to the body is less than when a powerful beam of X-ray must be passed directly through healthy structures to reach the tumor.

While but a few general rules can be drawn in regard to the radio-sensitiveness of human tumors, there are a few facts to which we can refer with some confidence. One is, of course, the well-known phenomenon that the basal cell tumors of the skin are radio-sensitive, and if they do not contain squamous cells, can be cured by proper use of radiation methods in 90 per cent, if taken before the tumor has reached a considerable size. If, however, bone or cartilage is invaded, the tumor becomes much more resistant and the final result doubtful. Also tumors which have been treated by caustics, solid carbon dioxide, or previous radiation, are much more

¹ See, for example, Smithies, *Surg., Gynec. and Obst.*, 1923, xxxvi, 61; and Holfelder, *Strahlentherapie*, 1922, xiii, 438.

²Wood, F. C.: *Journal of Radiol.*, 1922, iii, 37.

difficult, and in many cases do not yield at all. This is not due to any hypothetical immunity to physical agents, as has frequently been stated, but merely to the fact that such injured and poorly nourished tissues cannot bear the requisite radiation dose necessary to kill the tumor cells. The lymphosarcomata also are often radio-sensitive, but not always.

The only other generalization possible with human tumors is that those which are highly vascularized and rapidly growing very often yield temporarily a least very astonishing clinical results. The apparent cure is, however, by no means permanent. The reason for this is that one of the primary effects of radiation is upon the capillaries, causing thickening of the endothelium, perivascular edema and infiltration, and ultimate thrombosis of the vessels. This obviously results in extensive necrosis in the central portion of the tumor, with secondary necroses following upon the destruction of the cells, their softening and absorption. The process, however, soon comes to a limit, and leaves, as a rule, a shell of tumor still perfectly vascularized from the larger arterioles coming directly from the normal tissues which surround the tumor. The effective use of radiation for the cure of cancer depends upon our ability to destroy the remaining shell of a tumor and not the main central mass. The failure up to the present in obtaining satisfactory results means that the tumor cells thoroughly supplied with circulating blood through capillaries or arterioles which cannot be thrombosed by radiation, approach very closely to the limits of resistance of the normal tissue. In our efforts to destroy the last few cancer cells which may remain, the normal cells must receive serious damage, even to such a degree as to jeopardize or destroy the life of the patient. For example, in endeavoring to destroy carcinoma of the cervix uteri, a number of examples of perforation of the intestine have been seen. If the vascular tumors are sensitive, then it is a safe conclusion that the tumors which have little vascularization are insensitive. This is also roughly true. The fibrosarcomata, the osteochondrosarcomata, and the osteoidsarcomata, or the ordinary simple, benign fibromata with little but supporting tissue are markedly radiation-resistant.

The widely heralded carcinoma and sarcoma dose, suggested by Seitz and Wintz, is rapidly being abandoned as meaning anything but the minimum quantity of radiation which will cause temporary recession of a tumor. Of course, temporary recession is by no means synonymous with cure. The Seitz and Wintz dose represents in all probability approximately the maximum dose which the tissues will stand without serious injury to the patient, and therefore points to the limitations of our present radiotherapy.

Again tumors of exactly the same histological structure often vary greatly in their radio-sensitiveness; hence the histological study of excised material offers but little in the direction of treatment. Until more is known of the radio-sensitiveness of human tumors, all radiotherapy is merely empirical and recourse should therefore be had to surgery in all *operable* malignant tumors, for surgery removes the tumor, whether it is radio-resistant or not, its success depending entirely on the extent of the anatomical distribution of the tumor material, and not upon any quality of the individual cells.

If surgery should be used on all *operable* malignant growths it is equally true that those which are *inoperable* should be treated by radiation. Meddlesome and partial surgery is worse than useless and only brings discredit to a method which has achieved so much.

In the *palliation* of inoperable neoplasms and postoperative prophylactic raying lies the present field of radiation and the results are often so good that we may look forward with confidence to greater achievements in this direction in the future. The only hope at present of successfully treating border-line cancer lies in earlier diagnosis, prompt and more extensive surgery followed in all suitable cases by judicious radiotherapy.

NEUROLOGY IN GREATER NEW YORK

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IN 1921 the Public Health Committee of the New York Academy of Medicine spent a year and a large sum of money in a study of the hospital conditions in Greater New York. A special staff, including several physicians and persons experienced in hospital organizations, were employed in the work. Reports on various features have been made, and the final complete report is nearly finished. The work has been warmly commended by those interested in hospital work and administration, and a new organization, known as the Hospital Information Bureau, has been formed as a result, under the auspices of the United Hospital Fund.

One of the chapters in the coming report deals with the neurological services in the hospitals of Greater New York. It seemed to me that the neurologists would be interested in knowing the extent and quality of the services, and Dr. Thos. K. Davis, who made a great part of the investigation, has drawn up the larger portion of the following. The neurological hospital services in Greater New York consist of wards in Bellevue Hospital, Kings County Hospital, City Hospital, Metropolitan Hospital, Central and Neurological Hospital, Montefiore Hospital, Mt. Sinai Hospital and Neurological Institute.

These are the only hospitals having a definite neurological service with a neurological staff of internes and visiting physicians. But neurological cases are received and examined by neurological consultants in most of the general hospitals.

A study of these various special services was made in the following way: It was assumed that a hospital service was approximately as good as its records. Poor histories, inadequate notes, absence of laboratory records or of evidence of any therapeutic interest, were assumed to be fair evidence of careless or insufficient service. Therefore, from 25 to 50 records of cases were taken at random from each hospital and studied. All points connected with the medical and nursing care of the patient as indicated on the charts were noted. In addition, the number of doctors, nurses and attendants to patients was considered; the character of the service, whether acute, sub-acute, or chronic; the laboratory equipment and the appliances of physio-therapy and occupational therapy.

The distribution and character of the neurological services in Greater New York is as follows:

	BEDS	SERVICES
B. Bellevue Hospital.....	36	Acute and Sub-acute
Kings County Hospital (Chronic Neurological)...	850	Chronic
D. Central and Neurological Hospital	220	Chronic
F. Montefiore Hospital.....	250	Chronic
A. Neurological Wards of City Hospital	164	Chronic
E. Neurological Wards of Metropolitan Hospital....	78	Chronic
G. Neurological Institute....	90	Acute and Sub-acute
C. Mt. Sinai Hospital.....		Acute and Sub-acute

This gives about 1,500 beds for chronic neurological cases and somewhat over 200 beds for acute and subacute neurological cases.

Dr. Davis in the present report describes and discusses the condition of the services in each of the eight hospitals following the method described. A number of examples are given of defects in the records, deficiencies in the medical or nursing staffs and in the equipment. He has noted the adequacy as well as the deficiencies of the services; also the extent to which they are used for educational purposes. In this last point, the condition was found to be quite satisfactory, the material being used for teaching in more than half of the hospitals.

In general it is the services caring for chronic neurological cases that are most in need of help, along all lines.

The Public Health Committee and practically the New York Academy of Medicine itself, has approved of this report. As a result of it we make the following suggestions:

First. There should be a great increase in the neurological bed capacity for all classes of cases. There is a fundamental difficulty in formulating this increase in terms of acute, sub-acute and chronic cases.

This is because it is hard to delimit the groups, for they tend very much to merge. Acute encephalitis of any etiology and the meningitides for example are diseases of the central nervous system which in their onset, course, age group, immune status, and type of person attacked, nearly parallel such an acute but strictly medical disease, as for example lobar pneumonia. Yet there are large differences between the sequelae of the neurological and medical conditions. Such acute neurological diseases as multiple neuritis and types of myelitis need only to be mentioned to bring to mind clinical features belonging to them, which put them among the chronic nervous diseases.

A neurological condition such as brain abscess falls into the so-called acute neurological group, yet the brain abscess is not actually present until an acute infectious focus, possibly an acute otitis media, has progressed into a new and in a sense chronic clinical status.

Neurological vascular conditions (cerebral thrombosis and hemorrhage) have a true acuteness in onset, but fundamentally are chronic in prospect in a great majority of cases. Also the status which occasioned them is a chronic one. The so-called acuteness of acute vascular phenomena, therefore, is belied by the occasioning condition as well as by the time and probable sequelae of the later course.

If in any realm of medicine the distinctions between acute and chronic conditions are relative distinctions, those distinctions are more especially relative in the neurological realm. Also even presuming that we could define acute neurological cases more exactly than the above would indicate, the specialty of neurology is as yet not in a position to persuade all other branches of medicine to turn over to it the cases which would seemingly belong in its province. The internists continue to treat meningitis and even encephalitis and multiple neuritis, as well as the vascular lesions. Conflicts of this sort between internal medicine and neurology are duplicated between neurology and other specialties. This circumstance is not cited in a carping spirit, but merely because it has a definite bearing on the distribution of cases in any hospital and therefore bears directly on how many beds are needed for acute neurological cases. If general medical and surgical thinking worked toward the end of every neurological case, becoming the care of neurologists, the need of the beds for acute neurological cases would be greatly augmented. Should the aim be to increase the number of beds for

acute cases and incidentally to battle with the other specialties with the object of obtaining the strictly acute neurological cases to fill such beds? Obviously the answer is NO.

The aims to be pursued rather follow in the direction of increasing the number of beds for the subacute type of case, now cared for in a typical neurological ward, and of increasing the number of beds for the strictly chronic type of case. The ultra chronic case, which at present receives merely custodial care, is a feature of this group.

There is the need, then, first of all, for more beds for neurological cases, both the subacute and the chronic. At Mount Sinai it would appear that the pressure of patients to be admitted is responsible for the average unduly short stay of patients—a stay not too short for diagnosis, but too brief for an ideal inauguration of therapy. There is always a waiting list. The service at Bellevue for a similar type is crowded; there is a waiting list for admission and because of the lack of beds, only a portion of the cases are taken into the neurological ward which arise in the other wards and are suitable for transfer. There is a huge need for more beds at the Neurological Institute. These three services are especially pointed out as evidencing this need, for they are hospitals with neurological wards in which initial diagnostic work especially centers. The need for more beds for chronic cases is most apparent in the Central and Neurological Hospital which, though a hospital with a capacity of 740 beds, has only 220 beds for neurological cases. The remaining 550 beds are medical and surgical beds and serve the purpose of caring for the sick from the adjacent City Home.

The Metropolitan Hospital and the City Hospital suffer from the capacity limitation of the Central and Neurological Hospital. Frequently they are held up on the transfer of cases which are proper for such transfer. Such delays interfere with the proper handling of subacute cases on a diagnostic basis. The benefit gained from a sufficiently large Central and Neurological Hospital would not alone extend to its immediate "feeders," namely the City and Metropolitan Hospitals, but would extend to every neurological service of New York as well as to the hospitals which, though without neurological services, have to deal in some measure with neurological cases.

Second. After a study of the care given to the subacute and chronic neurological cases in New York, one sees that the needs of these patients are very great. One very special need is for more physio-therapy. Of the hospitals inspected only the Neurological Institute, Montefiore Home and Mount Sinai Hospital have enough facilities for this work. In Bellevue the

facilities are considerable, but in view of the volume of such work to be done, they are inadequate. In all the other institutions the facilities are woefully inadequate.

Occupational therapy is a highly useful measure which is not sufficiently used in the majority of the hospitals.

Third. The third need is for a higher standard of medical recording throughout, but especially in some of the institutions where chronic cases are cared for. One who sees the tell-tale charts of some of these institutions knows that for the most part there is a slovenly type of medicine practised. The slovenliness may depend on the inherently lazy character of the resident physicians.

For their extenuation, one must point out that they are underpaid and have too large a number of patients to handle.

Fourth. We need to refer to a fourth, possibly a lesser need, namely, that of much greater attention in all the hospitals to psychiatric complications either by the making of notes by the neurologists directly in charge, or by the use of psychiatric consultants. The psychiatric thought regarding virtually all the cases is rather distressing.

Fifth. There is a definite defect in some services due to the difficulty in handling or receiving functional cases. Organic neurology is eventually largely "dead stuff" and any real human or scientific interest in hopeless terminal states is apt to fade away.

If chronic, curable functional cases could be mingled with the chronic organic, more attention would be paid to the service.

If neurologists would interest themselves in the mental hygiene movement, as psychiatrists do, they could be of great help to the functional cases, to the community and incidentally to themselves. Organic neurology is the fundamental thing in the equipment of the neurologist. It keeps his feet on the ground, and his mind in a state of alert consciousness.

But the great mass of patients of the paying class are functional cases, and unless they are intelligently observed and treated, they go to the Christian scientists, Chiropractors, Couéists *et al.*

There should be a neurological psychiatric annex in all the neurological services and when possible in those of the Municipal hospitals. If this were done, cases of compulsion neuroses, and other forms of psychasthenia, anxiety states, hysteria major, and plain nervous prostrations might let go and get an intelligent diagnosis and the outlines of intensive, and if needed, prolonged treatment.

Sixth. All neurological services should be so connected up with laboratories as to give oppor-

tunity for research as well as for thorough study of each individual patient.

Lastly and Specifically. The specialty of neurology in New York needs most that the Central and Neurological hospital should be much larger than the present one, fully equipped with physio-therapeutic agencies. It should be a hospital in which these measures should never be relinquished in individual cases, even though hopeless. *There should be an ample staff of properly paid physicians.*

The proper development of the housing and the intensified therapeutic features of such a hospital would elicit great personal attention from the attending staff. Such a chronic service would in reality be "active" and the indolent type of resident physician could find no resting place in it.

The Central and Neurological Hospital developed in this fashion would serve for Manhattan, and the Chronic Neurological Hospital, a part of Kings County Hospital, similarly glorified, is needed for Brooklyn.

Two such central neurological depots for neurological diagnosis, for therapy and for neurological science, could be made institutions of even greater value and importance than the State hospitals for psychiatric diagnosis and study.

AN ANALYSIS OF FIVE HUNDRED DEATHS FROM DIPHTHERIA OCCURRING IN NEW YORK STATE (EXCLUSIVE OF NEW YORK CITY) IN 1922

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THE reports on which this analysis is based were assembled under the direction of Dr. Edward S. Godfrey, Jr., Director of the Division of Communicable Diseases, New York State Department of Health. The individual report blanks were filled out in most cases by the Sanitary Supervisors (now District State Health Officers) of the various health districts, sometimes through local health officers, at other times through personal interviews with the physicians. Occasionally where the information seemed incomplete or inadequate, the families of the patients were visited to complete or to check up the information previously obtained.

For convenience in tabulation the first five hundred reports received before May 1, 1923 (excluding eleven cases where investigation showed that the deaths were due primarily to another cause than diphtheria), were used for this analysis.

Failure of the mortality rate from diphtheria to show a decrease in recent years appeared to

justify such an investigation. It seemed possible that it might reveal certain reasons why the deaths occurred, and point to more adequate methods of public health procedure and private practice.

The distribution by age and sex, shown in Table I, is approximately that which usually occurs—namely, a slight excess of deaths among males for all cases, but among females in children of school age and in adults.

TABLE I. DISTRIBUTION BY AGE AND SEX

Ages	Under										Over		Tl.
	1	1	2	3	4	5-9	10-14	15-19	20-29	30	30		
Males	12	40	32	31	28	79	22	2	3	7		256	
Females	11	19	23	28	30	98	15	4	3	13		244	
Males and Females	23	59	55	59	58	177	37	6	6	20		500	

Table II is of interest, indicating the advisability of further education of parents to the need of summoning a physician immediately in cases of sore throat or croup. The table shows that in only 15% of the cases was a physician summoned on the first day of the illness, and in only 32% of the cases was a physician called on the first or second day of the disease. Although the figures are too small to draw definite conclusions, it would appear that the least neglected ages are in infants and adults, where 35% and 41% respectively were seen by a physician on the first or second day of the disease—as compared with only 31% in the case of children from 2-14 years of age.

TABLE II. PHYSICIAN'S FIRST VISIT (BY LARGE AGE GROUPS)

Age	Day of Disease							Tls.
	1	2	3	4	5	More than 5	Unknown	
Under 2	14	15	16	7	7	16	7	82
2-14	51	68	62	49	42	87	27	386
15 and over	8	5	6	4	1	6	2	32
All ages	73	88	84	60	50	109	36	500

The importance of promptness in the administration of antitoxin is well known by all physicians who have treated large numbers of cases of diphtheria. If it is administered in adequate dosage on the first day of the disease, with proper surgical treatment in laryngeal cases, recovery nearly always takes place. Table III points to the need of greater promptness in the specific treatment by physicians as a whole. In approximately 40% of the cases under consideration antitoxin was not administered on the day of the physician's first visit; in 53 cases (11%) antitoxin was not given at all. The factors involved in the failure to give antitoxin are discussed in a subsequent paragraph.

TABLE III. INTERVAL BETWEEN PHYSICIAN'S FIRST VISIT AND FIRST DOSE OF ANTITOXIN (BY LARGE AGE GROUPS)

Age	Cases										Tls.
	Interval in Days										
	Less than 1	1	2	3	4	5	6	More than 6	Un- kn'wn	Ant. not gvn.	
Under 2	49	7	5	2	0	1	1	0	5	12	82
2-14	236	50	17	10	5	0	2	1	27	38	386
15 and over	14	6	2	2	1	0	0	2	2	3	32
All ages	299	63	24	14	6	1	3	3	34	53	500

A further analysis of the time of giving antitoxin is made in Table IV. In some cases on the first day of the disease where the diagnosis is doubtful, it is conceivable that it might be justifiable to await developments for a day before giving antitoxin. The analysis in Table IV, however, shows that in at least twenty-four cases where the physician saw the patient on the first day, antitoxin was not administered until later than the following day. Where cases were first visited on the second or third day of the disease, the administration of antitoxin was delayed in at least sixty-four cases. There is thus indicated the possibility that the fatal outcome might have been prevented in a considerable proportion of eighty-eight cases by earlier administration of treatment. It is evident that care should be taken to have an adequate supply of antitoxin readily available and to exercise foresight by carrying it on distant calls where the possibility of diphtheria exists.

TABLE IV. CASES TABULATED ACCORDING TO THE DAY OF DISEASE WHEN FIRST SEEN BY PHYSICIAN AND THE INTERVAL BETWEEN THE PHYSICIAN'S FIRST VISIT AND THE FIRST ADMINISTRATION OF ANTITOXIN

Day of Physician's first visit	Cases										Tls.
	Interval in days between physician's first visit and the first dose of antitoxin										
	Less than 1	1	2	3	4	5	6	More than 6	Un- kn'wn	Ant. not gvn.	
First day	30	9	9	5	4	5	1	10	73		
Second day	43	19	7	4	2	2	1	10	88		
Third day	45	20	5	2	0	0	2	10	84		
Fourth day	46	6	0	1	0	0	3	4	60		
Fifth day	41	3	0	1	0	0	2	3	50		
Later	88	6	3	0	0	1	2	9	109		
Unknown	5	0	0	1	0	0	23	7	36		
Totals	298	63	24	14	6	8	34	53	500		

The relation of the laboratory report on cultures to the administration of antitoxin is of interest in this connection and is shown in Table V. This table shows that in seventy-nine instances antitoxin was withheld until after a report was received from the laboratory. Wherever there is clinically a suspicion of diphtheria there should be no hesitation in giving antitoxin. Not only is delay dangerous, but it also not infrequently

occurs that cultures are negative, although the symptomatology, a history of exposure or the development of secondary cases leaves no doubt as to the diagnosis. In the series here under consideration (See Table VI), the first culture was negative in nearly 15% of the 348 cases on which the results of cultures were known.

TABLE V. RELATION OF DATE OF FIRST DOSE TO LABORATORY REPORT*

	No. cases
Antitoxin given before laboratory report	184
Antitoxin given same day as laboratory report	159
Antitoxin given after day of laboratory report	79
Antitoxin not administered	53
Information not available	25
Total	500

*In approximately half of the cases a defective blank was used in which only one space was allowed for date of culture, thus making it frequently impossible to determine whether date given referred to date of taking culture or date of receiving report. This means that a considerable number of those listed above as receiving antitoxin on the same day as the laboratory report actually had antitoxin before the laboratory report.

TABLE VI. RESULTS OF CULTURE

	No. of cases
First culture positive	301
First culture negative, later positive	12
All negative	35
No culture taken	74
Information lacking	78
Total	500

Table VII is perhaps of minor significance in illustrating the dependence which is placed on cultures taken from the throat only. In view of the fact that laryngeal or nasal involvement was reported in 287 cases it seems probable that a higher proportion of positive cultures would have been obtained if more than one source had been tried. It is a simple matter as a routine practice to take a culture from the throat and nose. Nothing in this paragraph, however, should be considered to detract from the emphasis to be placed on adequate treatment before the result of the culture is known.

TABLE VII. SOURCE OF CULTURE

	No. of cases
Throat only	242
Nose only	14
Larynx only	11
Throat and nose	54
Throat and larynx	14
Nose and larynx	1
Throat, nose and larynx	2
Other sources	2
No culture taken	74
Information lacking	86
Total	500

Some difference of opinion may still be justifiably held as to what constitutes adequate treatment in diphtheria. The standard used for comparison here is that recommended by Park*, as follows:

* Jour. Am. Med. Assn., 76, 2, p. 109, Jan. 8, 1921.

TABLE VIII

	Mild Cases	Early Moderate	Late Moderate and Early Severe (See footnote)	Severe and Malignant (See footnote)
Infants under 2 yrs. (10-30 lbs. in wt.)	2000-3000	3000-5000	5000-10,000	7500-10,000
Children under 15 (30-90 lbs.)	3000-4000	4000-10,000	10,000-15,000	10,000-20,000
Adults (90 lbs. and over)	3000-5000	5000-10,000	10,000-20,000	10,000-50,000
Method of administration advised	Intra-muscularly	Intra-muscularly	Intra-venously	Intra-venously

FOOTNOTE.—When given intravenously, the small amounts stated should be used. Cases of laryngeal diphtheria, moderate cases still active and seen late at the time of the first injection, and moderate cases of diphtheria occurring as complications of the exanthems should be treated as "severe" cases.

In Tables IX, X and XI, tabulations are made of the dosage of antitoxin in accordance with the age grouping of Park's classification. A study of these tables shows that, judged by this standard, only sixteen patients are reported to have received on the first day of illness what would be considered an adequate dose for a severe case of the disease. It is to be recalled in this connection that seventy-three patients were visited on the first day of sickness. Of the 161 patients reported to have been seen by a physician on the first or second day of illness, only 57 are stated to have had a possibly adequate dose on either of these days. Of these 25 are stated to have had as much as the maximum dosage indicated.

the number of days was known. The need of giving a fully adequate dosage on the first day when the disease is suspected has been frequently emphasized by physicians who have had wide experience in the treatment of diphtheria.

TABLE XII. NUMBER OF DAYS ON WHICH ANTITOXIN WAS ADMINISTERED

Cases	Days					Un-known	Total Cases
	Not administered	1	2	3	4		
53	273	126	23	10	1	14	500

Tables XIII-XV may be studied in further elaboration of this point. These tables show that even where the administration of antitoxin was begun later than the second day of the disease, injections were made on more than one day in at least 120 cases. These three tables also merit further consideration from the standpoint of the total amount of antitoxin given. In at least 18 of the 175 cases under consideration, the total dosage was insufficient according to Park's standard, previously mentioned. It is evident, too, that in fully 77 others of these 175 cases, although the total dosage might be considered sufficient, all the antitoxin after the day when antitoxin was first administered was given later than the third day of the disease, hence was of doubtful value.

TABLE IX. AGE UNDER 2

Units of antitoxin given on day when first administered	Cases Day of disease					Later	Unknown	Tls.
	1	2	3	4	5			
Not administered	0	1	2	0	0	0	0	12
Less than 2000	0	0	0	0	0	0	0	3
2000-2900	0	0	0	0	0	0	0	0
3000-3900	1	0	1	2	1	2	0	7
4000-4900	0	0	0	0	0	1	0	1
5000-9900	3	2	7	3	1	4	2	22
10,000-19,000	0	4	2	3	3	7	1	19
20,000-39,000	1	2	3	2	1	2	0	11
40,000 and over	0	0	1	1	1	0	0	3
Unknown	0	0	0	0	0	2	2	4
Totals	5	9	16	10	7	18	5	82

TABLE X. AGE 2-14

Units of antitoxin given on day when first administered	Cases Day of disease					Later	Unknown	Tls.
	1	2	3	4	5			
Not administered	2	1	3	6	8	1	2	38
Under 5000	8	10	19	19	14	27	9	106
5000-9900	3	21	21	25	16	37	5	128
10,000-19,000	6	8	11	7	10	26	3	71
20,000-39,000	2	1	3	3	0	2	0	11
40,000 and over	0	0	0	0	1	0	8	9
Totals	21	41	57	60	49	93	27	386

TABLE XI. AGE 15 AND OVER

Units of antitoxin given on day when first administered	Cases Day of disease					Later	Unknown	Tls.
	1	2	3	4	5			
Not administered	0	0	0	0	0	1	0	1
Under 5000	3	0	0	0	1	4	2	10
5000-9900	1	2	0	3	2	2	0	10
10,000-19,000	0	0	0	3	0	0	0	3
20,000-39,000	0	0	0	1	1	1	0	3
40,000 and over	0	0	0	1	0	0	1	2
Totals	4	2	0	8	4	8	3	32

Table XII reveals the fact that in 160 cases antitoxin was administered on more than one day or 33% of the total of 486 cases in which

TABLE XIII. AGE—UNDER 2

Total units of antitoxin where given on more than one day	No. of Cases Day of disease when first given					Later	Un-known	To-tals
	1	2	3	4	5			
Under 5,000	0	1	1	0	0	0	0	2
5,000 - 9,900	0	0	0	1	0	1	0	2
10,000 - 19,000	0	0	3	0	0	0	1	4
20,000 - 39,000	1	1	0	0	0	2	0	4
40,000 and over	1	1	1	0	0	0	0	3
Unknown	0	0	0	1	0	1	2	4
Totals	2	3	5	2	0	4	3	19

TABLE XIV. AGE—2-14

Total units of antitoxin where given on more than one day	No. of Cases Day of disease when first administered					Later	Un-known	To-tals
	1	2	3	4	5			
Under 5,000	1	0	0	0	0	0	0	1
5,000 - 9,900	0	1	4	3	3	2	0	13
10,000 - 19,000	2	6	10	7	6	8	2	41
20,000 - 39,000	4	10	8	10	7	13	5	57
40,000 and over	0	2	6	4	1	6	1	20
Unknown	0	0	0	1	1	0	7	9
Totals	7	19	28	25	18	29	15	141

TABLE XV. AGE 15 AND OVER

Total units of anti-toxin where given on more than one day	No. of Cases					Un- Later	To- wn	Tals
	Day of disease when toxin was first given	1	2	3	4				5
Under 5,000	0	0	0	0	0	0	0	0
5,000 - 9,900	0	0	0	0	0	0	0	0
10,000 - 19,000	0	0	0	0	0	1	0	1
20,000 - 39,000	2	1	0	2	0	3	1	9
40,000 and over	0	0	0	2	1	0	0	3
Unknown	1	0	0	0	0	0	1	2
Totals	3	1	0	4	1	4	2	15

Park has shown that when antitoxin is given intravenously, it is absorbed ten times more rapidly, and, when it is given intramuscularly, four times more rapidly than in the subcutaneous method.* It is safe to say that authorities agree that subcutaneous injections should not be given in diphtheria. This method should be reserved for prophylactic doses among exposed persons only. The intravenous method is desirable for severe cases and for those seen later in the disease. If it is not feasible to use the intravenous method, the injections should be given intramuscularly. Table XVI reveals the need of further attention by physicians to the method of administration.

TABLE XVI. METHOD OF ADMINISTERING ANTITOXIN

Method of administration	No. of Cases	
	First day's administration	Subsequent administration
Not administered	53	192
Intravenous only	12	11
Intramuscular only	248	81
Subcutaneous only	151	54
Intravenous and intramuscular	10	7
Intramuscular and subcutaneous	7	1
All three methods	1	0
Unknown	18	154
Totals	500	500

* Boston Med. & Surg. Jour., clxviii, 3, p. 73, Jan. 16, 1913.

In Table XVII the cases are separated according to the location of membrane. The larynx was reported to be involved in 226 cases or 45% of the total. The tonsils were undoubtedly involved in a greater number of instances than is indicated by this table, as the form of questionnaire first used did not mention the tonsillar type, also the pharyngeal type is generally considered to include tonsillar involvement.

TABLE XVII. TYPE OF CASE

Type of Case	No. of Cases
Laryngeal only	144
Laryngeal and pharyngeal	41
Laryngeal and tonsillar	4
Laryngeal and nasal	10
Laryngeal, pharyngeal and tonsillar	12
Laryngeal, pharyngeal and nasal	11
Laryngeal, tonsillar and other	1
Laryngeal, pharyngeal, tonsillar and nasal	3
Total laryngeal	226

Type of Case	No. of Cases
Pharyngeal only	149
Pharyngeal and tonsillar	23
Pharyngeal and nasal	38
Pharyngeal, tonsillar and nasal	8
Pharyngeal, tonsillar and other	1
Pharyngeal, nasal and other	1
Tonsillar only	17
Tonsillar and nasal	1
Nasal only	11
Nasal and other	1
Other	1
Unknown	23
Total	500

The mode of death is tabulated in Table XVIII. In 117 cases respiratory obstruction occurred. In 219 other cases cardiac involvement was reported.

TABLE XVIII. MODE OF DEATH

Mode of Death	No. of Cases
Respiratory obstruction only	64
Respiratory obstruction and cardiac involvement	8
Respiratory obstruction and pneumonia	5
Respiratory obstruction and toxemia	25
Respiratory obstruction, cardiac involvement and toxemia	7
Respiratory obstruction, cardiac involvement and other complication	1
Respiratory obstruction, pneumonia and toxemia	3
Respiratory obstruction, pneumonia and other complications	1
Respiratory obstruction, toxemia and other complications	2
Respiratory obstruction, cardiac involvement, toxemia and other complications	1
Total respiratory obstruction	117
Cardiac involvement only	106
Cardiac involvement and pneumonia	5
Cardiac involvement and toxemia	73
Cardiac involvement and other complications	11
Cardiac involvement, pneumonia and toxemia	5
Cardiac involvement, toxemia and other complication	18
Cardiac involvement, pneumonia, toxemia and other complication	1
Total cardiac involvement	236
Pneumonia only	11
Pneumonia and toxemia	6
Pneumonia and other complication	5
Toxemia only	93
Toxemia and other complication	11
Other complications only	11
Unknown	20
Total	500

Table XIX is of interest in showing the difference in the intervals between onset and death. Death was stated to have occurred during the first week of the disease in only 36% of the cases with cardiac involvement as compared with

TABLE XIX. DAY OF DISEASE ON WHICH DEATH OCCURRED IN VARIOUS MODES OF DEATH AND IN BROAD CLASSES OF TYPES OF CASES

Types of cases and Modes of Death	Day of Disease															Total
	1	2	3	4	5	6	7	8	9	10	11-20	21-30	31-40	41 and over	Un-known	
Laryngeal cases	1	14	19	37	35	29	17	15	10	8	24	5	3	4	5	226
All other cases	1	7	10	12	20	27	28	22	23	11	80	6	3	7	17	274
Respiratory obstruction	1	10	12	22	16	14	13	4	5	5	9	2	1	0	3	117
Cardiac involvement (respiratory obstruction excluded)	0	4	4	12	24	20	15	19	17	10	67	7	3	7	10	219
Pneumonia (excluding respiratory obstruction and cardiac involvement)	0	0	0	6	1	5	1	0	2	1	2	1	1	1	1	22
Toxemia (excluding respiratory obstruction, cardiac involvement and pneumonia)	1	5	10	6	12	14	14	12	7	3	23	0	1	0	3	111
Other modes	0	0	1	1	1	1	0	1	2	0	1	0	0	3	0	11
Mode unknown	0	2	2	2	1	2	2	1	0	0	2	1	0	0	5	20
All cases	2	21	29	49	55	56	45	37	33	19	104	11	6	11	22	500

67% of the laryngeal cases, 56% of the cases of toxemia, or 51% of all cases. These differences further emphasize the need of proper care during convalescence.

The laryngeal cases and the deaths from respiratory obstruction and from cardiac involvement are separated according to age groups in Table XX. Of the 431 deaths under ten years of age, 105 (24%) occurred from respiratory obstruction and 181 (42%) from cardiac involvement without respiratory obstruction. Of the 226 laryngeal cases at all ages, 116 (51%) died from respiratory obstruction. On the death reports in cardiac cases comment was sometimes made that the child was allowed to get out of bed against the orders of the physician. The large percentage of cardiac involvements illustrates the need of careful physical examination and the importance of laying emphasis on rest in bed during convalescence, especially where there is any suspicion that the heart may be involved.

TABLE XX. DEATHS FROM LARYNGEAL CASES AND RESPIRATORY OBSTRUCTION FROM CARDIAC INVOLVEMENT (BY LARGE AGE GROUPS)

	AGE															All ages
	Under 1	1	2	3	4	5-9	10-14	15-19	20-29	30 and over						
Total cases	23	59	55	59	58	177	37	6	6	20	20	8	0	500		
Laryngeal cases	9	41	42	26	25	61	10	2	2	8	0	0	0	226		
Deaths from respiratory obstruction*	5	18	25	17	8	32	5	1	1	5	0	0	0	117		
Deaths from cardiac involvement without respiratory obstruction	6	23	15	26	25	86	21	3	2	12	0	0	0	219		

* Seven pharyngeal cases included in table were reported to have terminated with respiratory obstruction, due to choking from large amount of membrane, edema, etc. All other deaths from respiratory obstruction occurred in laryngeal cases.

All the laryngeal cases were further analyzed to determine what surgical treatment, if any, was used. The results of this analysis are shown in Table XXI. In only 75 or 33% of the 226 cases was intubation reported to have been performed. In 53% of the cases dying from respiratory obstruction there was no surgical treatment of any kind (See Table XXII). Where intubation was not done, a tracheotomy was said to have been performed in only 7 cases, or 3.1%. While in a few instances it was stated that the physician arrived only a few minutes before death, it is believed that greater attention to the matter of operative procedure where the larynx is involved

TABLE XXI. SURGICAL TREATMENT IN LARYNGEAL CASES (BY LARGE AGE GROUPS)

Treatment	Age			Tls.
	Under 2	2-14	15 and over	
Intubation only	19	45	2	66
Tracheotomy only	0	6	1	7
Intubation and tracheotomy	3	5	0	8
Intubation and laryngeal swabbing	1	0	0	1
Other surgical treatment	0	6	0	6
No surgical treatment	27	94	9	130
Information lacking	0	8	0	8
Totals	50	164	12	226

Certain statistics in regard to various types of communities are given in Table XXII. Although the figures for towns and villages are perhaps

too small to draw definite conclusions, the slight difference between the fatality from respiratory obstruction in laryngeal cases in cities (47%) as compared with that of villages and towns (50% and 53% respectively) is not large enough to indicate that the more sparsely settled districts are suffering to a greater extent from failure to get adequate surgical treatment. Differences in age distribution do not alter this conclusion—62% of the laryngeal cases in cities were under age 5, as compared with 66% in towns and villages. On the other hand, the proportion of cases without surgical treatment in cities (46%) as compared with that in villages and towns (69%) might suggest that rural districts suffer comparatively more from lack of adequate surgical measures, but here again the number of cases considered is not large enough to make the difference in percentages significant.

TABLE XXII. STATISTICS BY CITIES, VILLAGES AND TOWNS

	Cities	Villages	Towns	Totals
All cases	343	55	102	500
Laryngeal cases	165	18	43	226
Laryngeal cases under age 5.....	103	14	26	143
Deaths from respiratory obstruction, laryngeal cases.....	78	9	23	110
Surgical treatment in laryngeal cases dying from respiratory obstruction:				
None	36	7	15	58
Intubation only	26	1	4	31
Tracheotomy only	4	0	2	6
Intubation and tracheotomy.....	8	0	0	8
Intubation and laryngeal swabbing	1	0	0	1
Other surgical treatment.....	1	0	1	2
Unknown	2	1	1	4
Totals	78	9	23	110

In Table XXIII a separate analysis is made of the 53 cases in which antitoxin was not given. It will be observed that in seven cases (13%) failure to make an immediate diagnosis was the only factor involved—waiting for a laboratory report being a factor in four of these seven cases. This serves further to emphasize the need of giving adequate treatment at once, if there is any clinical evidence of diphtheria.

Five of the six cases, attended by physicians who do not believe in the use of antitoxin, were attended by one and the same physician. Four of these deaths occurred in one family.

Of especial interest is Table XXIV* in which statistics are given on all cases where antitoxin was reported to have been administered on the first day of the disease. It is at once noticed that the intravenous method of administration was used in none of these cases. The intramuscular method was used in half of the thirty cases. An insufficient amount of antitoxin, lack of surgical treatment or improper after-care may have been responsible for the deaths in all except possibly five of these (Serial Nos. 1, 2, 4, 6 and 11). In four of the five cases other factors

were also mentioned which might have resulted in death—namely, several hours' delay in giving antitoxin, the use of improperly kept antitoxin, the existence of another disease, or some confu-

TABLE XXIII. FACTORS INVOLVED (53 CASES) IN ADDITION TO FAILURE TO ADMINISTER ANTITOXIN

No.	Factors involved	Only factor	One other factor	Two other factors	Total
1.	Failure to make diagnosis.....	7	9	3	19
2.	Physician considered it too late	0	6	0	6
3.	Death during attempted intubation	0	1	0	1
4.	No intubation or tracheotomy on account of failure to diagnose (included in No. 1).....	3	3	2	8
5.	Dependence on culture for diagnosis (included in No. 1).....	4	0	0	4
6.	Delay in bringing antitoxin.....	0	1	0	1
7.	Intubation, but death from respiratory obstruction	0	1	0	1
8.	Physician doesn't believe in antitoxin	0	6	0	6
9.	Antitoxin refused by family.....	2	3	0	5
10.	Surgical treatment lacking (not included in Nos. 1 and 4).....	1	2	6	9
11.	Doctor arrived after death.....	2	4	0	6
12.	Delay in getting physician.....	0	29	7	36
13.	Reason for not giving antitoxin unknown	2	4	2	8

sion as to the true date of onset. In one or, possibly, three (Serial Nos. 19, 21 and 26), of the fifteen cases where the subcutaneous method of administration was used, this was apparently the only factor involved in the cause of death. Nasal involvement occurred in seven cases (23%), as compared with eighty-four cases (17%) in the whole series. In all but two of the seven nasal cases, small doses were given. On account of the difficulty of determining the extent of a diphtheritic process which has extended from the throat to the nasopharynx, it seems evident that whenever this type occurs, it should be treated as a "severe" case.

From Table XXV* some comparison can be drawn as to the relative importance of the various factors involved in the cases where antitoxin was administered. Although it can readily be seen that responsibility of the parents enters to a greater or less extent into the 369 cases where the physician was called later than the first day of the disease, in the eight cases where surgical treatment was refused and in the twelve cases where patients were allowed to get up against the doctor's orders, the conclusion nevertheless must be drawn that inadequate treatment by the physician was even more frequently involved. Insufficient dosage, distribution of the administration over several days, the subcutaneous method, lack of surgical treatment, and delay in giving antitoxin stand out respectively as of greatest significance.

* See page 458.

* See page 459.

TABLE XXIV.—STATISTICS IN REGARD TO ALL CASES WHERE ANTITOXIN WAS REPORTED TO HAVE BEEN ADMINISTERED ON THE FIRST DAY OF THE DISEASE

Report No.	Serial No.	Age	Units of Antitoxin First Day	Method of Administration	Type of Case	Factors Involved in Death in Addition to Method of Administration of Antitoxin					Remarks
						Insufficient Dose	Improper After-care (Cardiac Death)	Lack of Surgical Treatment	Other Disease Mentioned	Other Factors	
41	1	4	20,000	Intramuscular	Laryngeal	No	No	No	Yes	Several hours delay in giving antitoxin.	Child was convalescent from severe lobar pneumonia and nephritis.
46	2	7	30,000	Intramuscular	Pharyngeal & Nasal	No	No	No	No	Confusion as to date of onset.	Date of onset given as same day as first visit, yet under remarks called a "late case."
44	3	2	27,000	Intramuscular	Laryngeal	No	No	Yes	No	No	Parents refused to have surgical treatment.
98	4	12	?(18,000)	Intramuscular	Pharyngeal	No	No	No	No	Antitoxin improperly kept?	
257	5	6	20,000	Intramuscular	Pharyngeal & Tonsillar	No	Yes	No	No	No	"Mother took child out of bed to rock him."
351	6	7	20,000	Intramuscular	Pharyngeal & Tonsillar	No	No	No	No	No	Death from toxemia and cardiac involvement.
419	7	9	12,000	Intramuscular	Pharyngeal & Tonsillar	Possibly	Yes (?)	No	No	Some question as to true date of onset.	In spite of apparent lack of symptoms extensive membrane indicated that disease must have begun several days previously. Child attempted to rise in bed and fell over dead.
454	8	6	48,000	Intramuscular	Tonsillar	No	No	No	No	Some question as to date of first symptoms. "Onset Nov. 13, first visit Nov. 12, antitoxin Nov. 13."	
472	9	8	5,000	Intramuscular	Pharyngeal, Tonsillar, Laryngeal & Nasal	Yes	Unknown	Unknown	Unknown	No	Data lacking as to surgical treatment and mode of death.
149	10	2	5,000	Intramuscular	Laryngeal & Nasal	Yes	No	Yes	No	Yes	Mode of death—exhaustion from cancer of sigmoid (4th day).
358	11	65	6,000	Intramuscular	Pharyngeal	Questionable	No	No	No	No	Had chronic nephritis and cardiac hypertrophy.
348	12	58	18,000	Intramuscular	Pharyngeal & Nasal	Yes	No	No	Yes	Yes	
141	13	12	6,000	Intramuscular	Pharyngeal	Yes	No	No	No	No	
18	14	4	2,000	Intramuscular	Laryngeal & Nasal	Yes	No	Yes	No	No	
15	15	22	6,000	Intramuscular	Pharyngeal ("Bull neck type")	Yes	No	No	No	No	
90	16	4	6,000	Subcutaneous	Pharyngeal	Questionable	No	No	Yes	More antitoxin given on three subsequent days	Had preceding chickenpox.
89	17	9	6,000	Subcutaneous	Pharyngeal	Questionable	Yes	No	No	No	Feeble-minded child—"could not be kept in bed."
42	18	2	6,000	Subcutaneous	Pharyngeal & Laryngeal	Yes	No	Questionable	No	No	Died of "toxemia" on 2d day.
48	19	9	20,000	Subcutaneous	Pharyngeal	No	No	No	No	No	Died of "cardiac paralysis" on 12th day.
70	20	2	6,000	Subcutaneous	Laryngeal	Yes	No	Questionable	No	No	Died of "cardiac paralysis" on 2d day.
88	21	9	6,000	Subcutaneous	Pharyngeal	Questionable	No	No	No	No	
146	22	1	6,000	Subcutaneous	Nasal	Yes	No	No	No	No	
150	23	57	6,000	Subcutaneous	Pharyngeal	Yes	No	No	No	No	
182	24	4	10,000	Subcutaneous	Laryngeal	Yes	No	Questionable	No	No	Died of "toxemia" on 3d day.
207	25	16 da.	3,000	Subcutaneous	Nasal	Yes	No	No	Yes	Yes	Had infected scalp wound following birth in hospital.
298	26	1	25,000	Subcutaneous	Laryngeal	No	No	Questionable	No	No	Died of "cardiac paralysis" during attempted re-intubation on 4th day.
390	27	1	7,000	Subcutaneous	Pharyngeal, Tonsillar, Laryngeal & Nasal	Yes	No	Questionable	Yes	Yes	Had "bronchial pneumonia" following measles two days before onset of diphtheria—died of cardiac involvement on 4th day.
379	28	9	3,000	Subcutaneous	Laryngeal	Yes	No	Questionable	Yes	No	
378	29	2	15,000	Subcutaneous	Laryngeal	No	No	Yes	No	No	
355	30	6	9,000	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Data lacking as to type of case, surgical treatment and mode of death.

TABLE XXV. FURTHER DATA ON 407 CASES IN WHICH ANTITOXIN WAS KNOWN TO HAVE BEEN GIVEN

No.	Factors entering into possible cause of death	Cases			Totals
		Only factor involved	One other factor involved	More than one other factor involved	
1.	First visit by physician later than second day of disease	45	66	183	294
2.	First visit by physician on second day of disease	12	18	45	75
3.	First visit by physician on first day of disease	0	17	21	38
4.	Time of physician's first visit—totals	57	107	243	407
5.	Insufficient antitoxin administered on day of first visit	2	24	186	212
6.	Dosage of antitoxin questionable (not included in No. 5)	0	11	33	44
7.	Subcutaneous administration	1	28	126	155
8.	Intramuscular injection in late or early severe cases (4 yrs. or more of age)	0	28	96	124
9.	Antitoxin delayed more than one day after first visit	5	14	38	57
10.	Antitoxin delayed one day only after first visit	2	8	43	53
11.	Surgical treatment lacking in deaths from respiratory obstruction	1	6	37	44
12.	Surgical treatment refused (included in No. 11)	1	2	5	8
13.	Surgical treatment attempted only	—	1	4	5
14.	Improper after-care in cardiac cases against orders of physician	—	—	12	12
15.	Improper after-care (cardiac cases), where physician said patient could get up	—	—	3	3
16.	Improper after-care, where responsibility could not be placed	2	0	7	9
17.	Antitoxin given on more than one day	0	14	142	156
18.	Other factors, unclassified	4	—	—	4

In this discussion no attempt should be made to minimize the difficulties which physicians meet in attempting to render adequate service. It is realized that in some cases delay in administering antitoxin may have been due to objections on the part of the parents. In one case it was stated that the parents refused to have antitoxin given until the result of a culture was known. In another instance the father claimed that the physician had caused the death of a five-year-old child, from "too much antitoxin"—although only 6,000 units had been administered.

In another case two physicians were in attendance and prepared to perform an intubation, but "did not dare to risk it owing to the presence of thirty or forty howling Italians."

On the other hand, it is difficult to follow the reasoning of the physician in attendance on a child dying from respiratory obstruction, who made no effort to have an intubation done, because he thought the child "would not stand the operation." Other cases occurred where it seems that a failure to make a correct diagnosis might have been avoided by greater care in the examination. One such failure occurred because the child had been subject to asthma. Another was thought to be whooping cough, as there had been other cases in the family.

One child had a recurrent attack of diphtheria two weeks after being discharged from a first attack. Here the physician took a culture but gave no antitoxin.

SUMMARY AND CONCLUSIONS

An analysis of five hundred deaths from diphtheria in New York State in 1922 tends to confirm the conclusion of previous observers that the death rate is practically nil when adequate treatment is given on the first day of the disease, with proper surgical measures, where indicated, and with good care during the course of the illness and convalescence. In the present series

the proportion of fatalities (6%) among patients reported to have received antitoxin on the first day of the disease is considerably higher than that obtained in the statistics of various hospitals, but an analysis of the factors entering into the cause of these deaths (such as insufficient dosage, lack of surgical treatment and improper after-care) indicates that under hospital conditions these factors would have been largely eliminated.

Further education of the population at large is needed, in order that parents may realize their responsibility in securing medical attention immediately for children who develop sore throat or croup, and in following the instructions of physicians in the care of the patients.

There is great need that the following principles should be generally observed:

1. The intravenous method of administration of antitoxin should be more widely used, especially in severe cases or in moderate cases seen later than the second day of the disease. In the 500 deaths considered in this analysis, the intravenous method was not known to have been used on the first day of the disease in a single instance.

2. Where the intravenous method is not used, antitoxin should be given intramuscularly. The subcutaneous method should be used only for prophylactic doses to exposed persons.

3. Antitoxin should *immediately* be given in *adequate* dosage in all cases where there is any clinical evidence of diphtheria. (It is of course advisable to desensitize the patient before giving the full dose in cases that give a history of asthma or of having had serum before.) Should the case prove not to be diphtheria, no real harm has been done. On the other hand, delay while awaiting the result of culture, or for other reasons, may be disastrous. In the present series delay in administering antitoxin was definitely a factor in the cause of death in at least 85 cases. Of 53 cases where no

antitoxin was given, failure to make a diagnosis was a factor in at least 19 instances. The standard of dosage used in this analysis is that recommended by Park. This standard is believed to be a conservative one, and at the same time reasonably adequate. It is possible that a more extended use of the intravenous method than that which he recommends might result occasionally in saving a life. Also cases in which the diphtheritic process extends from the throat into the nose should be classed as "severe."

4. The full amount of antitoxin should be given at one time. The analysis shows that antitoxin was given on more than one day in 33% of the cases in which it was known on how many days antitoxin was given. On the balance sheet of life and death it represents poor economy to save antitoxin on the theory that a little may be enough and that if the first dose proves insufficient, more can be given later.

5. Proper surgical treatment in laryngeal cases is extremely important. Of the 110 deaths from respiratory obstruction in these cases 58 had no surgical treatment of any sort. Unless such cases can be kept under continual observation, an intubation or tracheotomy should be performed.

6. Greater attention should be paid to the care of patients during their convalescence. This need is borne out by the fact that cardiac involvement was stated to have played a part in nearly half of all the deaths, and that in twenty-four of these cardiac cases failure to keep the patient at rest was definitely mentioned as the immediate factor in the fatal outcome.

Deaths

BRUGMAN, ALBERT F., New York City; College of Physicians and Surgeons of New York, 1883; Fellow American Medical Association; Academy of Medicine; Member State Society; Consulting Physician Fordham Hospital; Consulting Pediatrician United Hospital, Portchester. Died October 29, 1923.

BUELL, HARRY C., Canandaigua; Medical College of Ohio, 1891; Fellow American Medical Association; Member State Society; Surgeon Memorial Hospital. Died 1923.

CELANO, LUIGI, New York City; College of Physicians and Surgeons of New York, 1913; Fellow American Medical Association; Academy of Medicine; Member State Society; New York Pathological Society; Pathologist Bellevue Hospital; Adjunct Assistant Surgeon Italian Hospital. Died October 11, 1923.

COOLEY, JAMES SETH, Mineola; New York University 1877; University of Vermont, 1877; Member, State Society, President, Second District Branch, 1914-1915; Supervisor of Nassau County since 1900; former School Commissioner, Queens County; President, Nassau County Historical Society since 1915; President of the Mineola Library Association; Secretary of the Nassau Hospital Association. Died October 19, 1923.

FEINBERG, ISRAEL S., New York City; College of Physicians and Surgeons of New York, 1888; Member State Society; Alumni Association City Hospital. Died October 28, 1923.

HALL, GORDON ROBERT, Brooklyn; College of Physicians and Surgeons of New York, 1880; Member, State Society; Brooklyn Pathological Society; Visiting Physician Kings County Hospital; Consulting Physician Long Island College and Brooklyn Hospitals. Died October 23, 1923.

LICHTSCHEIN, LOUIS, New York City; Bellevue Medical College, 1884; Fellow American Medical Association; Member State Society; Neurologist Stuyvesant Polyclinic Hospital; Chief Neurologist Lenox Hill Dispensary. Died October 18, 1923.

NICOLAI, CURT E. H., New York City; Leipsic, 1881; Fellow American Medical Association; Member State Society; Consulting Physician Isabel Home. Died October 25, 1923.

ORMSBY, BYRON J., Norwich; University of Michigan, 1868; Member State Society. Died October 3, 1923.

QUINLAN, THOMAS FRANCIS, New York City; Bellevue Medical College, 1895; Fellow American Medical Association; Member State Society. Died September 26, 1923.

RANDALL, EDWIN THOMPSON, Brooklyn; New York University, 1898; Member State Society. Died September 12, 1923.

TOWLERTON, CHARLES H., Lyons; New York University, 1889; Fellow American Medical Association; Clinical Congress of Surgeons of North America; Member State Society; Alumni Bellevue Hospital; Surgeon Lyons Hospital. Died September 14, 1923.

WHEELER, STOUGHTON R., East Bloomfield; University of Buffalo, 1886; Member State Society. Died October, 1923.

WILLIAMS, KENT E., Rome; Syracuse Medical College, 1896; Fellow American Medical Association; Member State Society; Surgeon Rome Hospital. Died September 25, 1923.

THE NEW YORK POLYCLINIC MEDICAL SCHOOL AND HOSPITAL AGAIN TAKES UP TEACHING

We are glad to note the reopening of the New York Polyclinic Medical School and Hospital for teaching purposes. After a period of five years' idleness, during which time it was occupied for war purposes, there has been only one large School for Post Graduate Teaching in New York City. We understand that the faculty and teaching staff of the Polyclinic have been completely reorganized and that the new personnel represents a very high standard of instruction. Teaching is to be given to limited groups.

The whole question of post graduate work must deserve careful consideration by the medical profession. Instruction of this character is a commodity which has to be just as carefully marketed as merchandise in general business.

The prevailing idea that every center of population must be promptly capitalized as a medical center is distinctly wrong, men who seek true post graduate instruction are not interested in the exploitation of group medicine.

The abuse of using the words post graduate has led many men to start clinics which had no higher motive than the advertisement of their hospital or clinic for which they accepted a fee and left with the student the very definite impression of how little he knew and how much his instructor could provide him with in the way of consultation when any future reference work was necessary.

Another thing to bear well in mind is that post graduate schools of medicine have a greater mission than providing a *quid pro quo*. A student looking for a brushing up on any line of work is primarily a graduate physician and his angle is very different from an undergraduate physician; he wants the mature results of his professors and does not necessarily expect to devote all of his time to one subject. This brightening of his ideas along all lines makes him better able to handle the field of general practice; he learns his strong points and his own limitations.

To the specialist it is another story. Some men who go into a particular field are woefully lacking in their fundamental medicine, even among specialists who wish to improve their technique; the art of teaching consists in improving what the respective student has already learned or building upon it; here the close personal contact is extremely essential. It is very important that the medical profession make a distinction between clinics, health centers, etc., and the more serious effort to really improve the knowledge and skill of the medical profession.

O. S. W.

LAUDABLE REVOLT OF BRITISH PHYSICIANS

So engrossing is our daily work, so devoted of necessity are we to our medical study, so far above the trivialities of life, and even above contemplation of the proper financial return is our profession in general, that we, as a class, have not thought about standing for our rights or for those of our families, and have been repeatedly the objects of imposition.

At the beck and call of anyone, at all times, "in season and out of season," preferring duty to sleep, or to food, or to relaxation or recuperation, our lives are long chapters of service, in the main poorly recompensed and frequently unappreciated.

The old epigram regarding the physician runs: "To heal sometimes; to relieve often; to comfort always." It is still more sententious in the original French: "*Guérir quelquefois; soulager souvent; consoler toujours,*" and it expresses well the family doctor's aim and ambition.

The "tired business man," working six hours a day, enjoying every evening and 52 Sundays in every year, with a sure vacation of 4 weeks in midsummer, and a chance for the Spring fishing and the Fall shooting, this exhausted individual comes for aid to the physician who works at least twelve hours every day, has no Sundays and has rarely an evening, and possibly two or three weeks' vacation in midsummer.

The "tired business man" is exhausted with "terrible responsibilities" and with "thinking so intently" while he thinks. To him the care of property or of invested money is much more important and wearing than the responsibility of diagnosis and treatment, and often of life itself.

Unfortunately, learning his medicine from the man in the street, or from the cub reporter on some newspaper, he believes that medical practice is a rule of thumb, with no problems or intricacies and with a definite curative drug for every symptom, not appreciating that the object treated is not the disease, but the person diseased.

Of course, in a vast number of cases, the "tired business man" owes his condition not at all to work or to that mysterious form of thinking, but to his having laid the foundations for, and issued a definite invitation to disease, by overeating, consuming far too much animal proteid food, and using tea, coffee, alcoholic beverages and tobacco—those destructive stimulants that shorten youth and invite the terminal condition erroneously known as "old age," with which flight of years has nothing to do. While large fees are paid to lawyers quite readily, he demurs at a proper recompense for his family physician in a surprising large number of cases, paying grudgingly and tardily in many instances.

A habit of undervaluing physicians' services leads to the establishment of absurdly low rates

of compensation in certain insurance examiners' departments, in lodge practice, in liability and damage inquiries and adjustments, and in all contract medical work.

Of course, the retort is made that, if inadequate, physicians should refuse the terms of employment. But often the slow pay by most patients and the demands of the family obligate an increase of the family income as far as possible; and, although unhappy in the realization of the minimizing of the value of his services, and although humiliated by the advantage taken of his apparent necessity, he yields and accepts the crushing conditions of unfairly low compensation.

It is therefore refreshing to learn from London that 14,000 British physicians will resign in a body their positions as medical attendants under the national health insurance law, because of the projected reduction on January 1, 1924, of their meagre annual fees for caring for 15,000,000 working men and women.

Recently the British "panel doctors" have been receiving annually 9 shillings and 6 pence for each patient on their lists, of which the Government paid 2 shillings and 4 pence. The Government now suggests that it shall pay nothing and that the physicians shall accept 8 shillings and 6 pence, all of which munificent annual sum shall come from the Friendly Society, or the Trade Union, or the Industrial Insurance Company to which the insured patients belong.

It is to be hoped that the doctors will stand firmly together, and that they will refuse the reduced rates and will demand not only extra compensation for filling out the interminable number of forms demanded, but also entire freedom from dictation by non-medical officials of the Health Ministry.

Better yet will be a complete severance of relations with the governmental organization, and the establishment of independent medical public service, as determined by the British Medical Association, at rates which would furnish a fair and appreciative recompense to the toiling physicians, abolishing forever the annual pittance, predicated upon a supposition of little illness and little malingering.

Well, indeed, is it that the physicians of the State of New York defeated the robust attempts to establish Compulsory Health Insurance made by numberless laymen, as well as by certain astoundingly unexpected physicians, who would willingly have sacrificed certain of their medical brothers to just such an outrageously unfair condition as that in which our British confrères find themselves today.

A. W. F.

U. S. DEPARTMENT OF AGRICULTURE AN UNSAFE DIETITIAN

Errors of diet are responsible for by far the most incidences of disease. Without distinction of phrase, the homely proverb, "Most people dig their graves with their teeth," communicates the truth that multitudes shorten their lives and gallop to their tombs through overeating and through eating improper food.

To quote from Armstrong, who liberally translates Professor Charles Bouchard, "Man is living constantly under the chance of being poisoned; he is always working toward his own destruction, his suicide, by intoxication due to products he creates within his own body." The overtaxing of vital organs by improper food, the introduction of harmful flora into the intestine with certain foods (meats), the production and retention in the colon of harmful acids that are absorbed to attack the lining membrane of the heart and blood vessels, all these conditions—occurring oftentimes through ignorance—can be corrected by the use of proper diet.

Until rather recent times, it was thought that man was a carnivorous animal. A good many points were strained to demonstrate the alleged truth of the statement from the style of his canine teeth and from the acidity of his stomach juices. But it was necessary to fall back on the appetite for meat and the traditions of high living, when he could afford to pay for it.

Karl von Voit, professor of physiology in Munich, about 1870, set the figures for the intake of animal food after averaging the meat consumption of a great number of men of average health. His diction was that the man of average body weight of 70 to 95 kilos (154 to 165 lbs.), doing moderate physical work, required daily 118 grams of proteid food (including meat, eggs, milk, fish, lobster, brains, kidneys), of which 105 grams should be absorbable, 56 grams of fat, and 500 grams of carbohydrate, with a total fuel value of over 3,000 calories, in order to maintain the body equilibrium. His standard has been commonly accepted for many years.

Our own Atwater, formerly of Wesleyan University, after many observations upon the dietetic habits of different classes of people and people under different conditions of life, stated that as liberal a daily allowance of proteid as 125 grams would seem desirable. On the other hand, experimental work and observations during several years have suggested that it is possible that the real physiological needs of the body may be met by a much lower standard of diet. Professor Chittenden, of Yale University, was led to doubt, some twenty years ago, the almost universal belief in the efficacy (and the necessity) of a rich and abundant diet to strengthen the body and increase bodily and mental vigor. He ascribed this belief to generations of high living. Every-

one agrees that proteid decomposition products are a constant menace to the well-being of the body. The liver and the kidneys are under constant strain in their efforts to rid the body of the nitrogenous products resulting from an excess of proteid foods. In addition, there is the danger to the tissues from the intestinal putrefaction and toxæmia, should the body lose its ability to digest and absorb the excess of food consumed. Acting upon his convictions, Prof. Chittenden instituted a series of very instructive experiments, planned so as to show whether or not body equilibrium and nitrogen equilibrium can be maintained for months and years on a low proteid diet, vigor being unabated and proper resistance to disease secured. He pursued a series of experiments on each of three types or classes of individuals, whom he describes as follows: First, a group of five professors and instructors in the University, mental workers, and not active muscularly. Second, a detail of thirteen men from the Hospital Corps of the U. S. Army, moderate workers, who in addition to routine daily duty took a vigorous amount of systematic gymnasium work. Third, a group of eight trained young athletes, students in the University, some with exceptional records in competitions.

Gradually reducing the amount of albuminous or proteid food taken daily, in the course of a month or two he had put his professional men on a diet which supplied but 5 to 9 grams of nitrogen a day, against 15 to 18 grams demanded by the Voit standard, without loss of mental vigor or of physical strength, and with maintenance of body and nitrogen equilibrium. The tests of the members of the Hospital Corps resulted in the conclusion that 50 or 60 grams of proteid sufficed without increasing the amount of non-nitrogenous food. The men were conscious of less fatigue than formerly, and of an improved muscular condition. But the most striking results were reached in the cases of the members of the athlete group, several of whom, while on the restricted diet, won places in competitions, and all of whom improved in muscular ability. No deterioration of any kind occurred.

The danger of too great a proteid diet lies in the fact that in meats, liver, fish, sweetbreads, etc., there occur dangerous poisons which are very difficult of excretion, in fact are prone to retention in certain conditions. The purins embrace uric acid, xanthin, hypo-xanthin, adenin and guanin. The harmful bacilli brought into the colon with the ingested meat include the *Bacillus Welchii*, the *B. putrificus*, the *B. proteus* and *B. coli*, all putrefactive organisms.

Our principal problem, therefore, is not to devise ways and means of repairing individuals who are damaged by the poisonous derivatives of large quantities of animal food, but to teach the uninformed or self-indulgent the dangers of the old menu of the trencherman or the *bon-*

vivant, and the absolute sufficiency for health, growth and muscular and mental power of a dietary embracing very little animal flesh, or one eliminating altogether meat, fish, fowl, viscera and entrails (as of the oyster), and retaining only milk, butter, cream, cheese and eggs, of the animal foods.

Hence we, as physicians, are astonished to learn that a department of the U. S. Government has sent out a circular illustrated with a picture of a huge chunk of beef, nearly surrounded by a few vegetables and springs of parsley, and bearing the words:

MEAT IS WHOLESOME
FOR HEALTH AND VIGOR
EAT
WELL-BALANCED MEALS
USE A VARIETY OF KINDS
AND CUTS OF MEAT
U. S. DEPARTMENT
OF AGRICULTURE

The statements therein are indefensibly broad, since meat is unwholesome, except to the very few. Why this boosting of the butcher by a Government department? The issuance of this poster-circular should be universally condemned, and the Commissioner of Agriculture should be called to account, to explain, and to withdraw it, by a united intelligent profession.

A. W. F.

CONSCIENCELESS COMMERCIALISM.

It is difficult to understand how Abrams has been able to enlist the assistance of the *Scientific American* in advertising by investigation his "Electronic Reactions of Abrams" when the fraudlency of his claims has been already proven by the American Medical Association.

It is also shocking to discover on one's waiting room table the *New Republic* of October 31, 1923, carrying an advertisement of Abrams' cures of "cancer, tuberculosis and diabetes, etc."

We recall Friedman's fiasco with his turtle serum. We also recall how tubercular victims spent their last dollars in traveling to New York to be cured by a fakir handsomely backed by an advertising concern.

It seems strange that these papers should have been victimized into soiling their sheets with material that may lure not only the victims of incurable diseases, but many sufferers from lesser maladies, to spend their money, and their energies, in the pursuit of so-called "Electronic reactions" which the promoter has as yet been unable to differentiate from pure bunk.

Both the *Scientific American*, and the *New Republic*, have large audiences of inquiring readers, many of whom are likely to construe their "investigation" and their advertisement as endorsement of the claims of this conscienceless commercialist.

N. B. V. E.

DEPARTMENT OF LEGISLATION

By James N. Vander Veer, M.D.

INDIVIDUAL RESPONSIBILITY IN REGARD TO LEGISLATION.

The attention of the medical profession must be called to the fact that though we have made a strenuous endeavor to be on the alert in legislative matters in the past few years, we still have a very large field before us and our most important work remains unaccomplished.

Each succeeding year sees practically the same measures introduced into the legislature, without any real constructive legislative program being accomplished. We will have each year the same anti-vivisection bill to combat; the chiropractors we will have always with us, until we have found a way of disposing of them, perhaps by their meeting some standards, part medical and part educational, if such can be done by them.

The men whom we elect to represent us in the legislative halls must be carefully chosen and must be educated to know the aims and desires of the medical profession, and when these same men who promise everything in order to get votes, have been elected, they must be made to keep their promises. We must keep in constant touch with them before the opening of the session, ever reminding them of their duty as legislators to conserve the health of their constituents.

It is the duty of each and every member of the medical profession to realize his individual responsibility in regard to legislation that affects the health of the people, and therefore physicians should and *must* see the men who are elected to represent them in the legislative halls, and see them often, enlighten them, teach them what laws should be enacted to safeguard the health of their constituents and enliven their interest in the question of public health.

The Committee on Legislation requests suggestions, criticisms, thoughts and articles from the various County Legislative Chairmen to be published in this new department, for in this way we may keep in touch with each other and offset objectionable legislation which may arise.

J. N. V. V.

PROSECUTION OF ILLEGAL PRACTITIONERS

An article which appeared in the *New York Medical*, week of February 26, 1923, says in regard to the Medical Practice Act:

"The non-enforcement of the Medical Practice Act in this State is a serious reflection on the ability or willingness of the government to enforce its laws on a very vital question. Seek where one will, it is impossible to find an official definitely and specifically charged with the duty of seeing that none but those qualified under the law practice the healing art.

"For the most part, it is true, violations of the Medical Practice Act do not affect very dire calamities. The most serious harm done as a rule, is to the pocketbooks of the ignorant and gullible who are mulcted by the fakirs and charlatans of every brand who are practicing medicine, the law notwithstanding, without restriction.

"Every once in a while, however, there is a fatality from this cause, and unnecessary and unjustifiable loss of life due to some quack who practices his cult with blithe disregard of legal prohibition. It is on the ground of these needless and useless deaths that we plead for a strict enforcement of the law.

"The medical profession, as the guardians of the community health, has often attempted, in the absence of any responsible official, to prosecute that parasite on medicine—the illegal practitioner of the healing art. As is inevitable, though, its efforts have always been regarded with suspicion by judge and jury alike, and the idea of medical prejudice has set many a quack free.

"There is no reason, moreover, for placing the burden of law enforcement on the shoulders of the organized or inorganized profession. In accordance with the principle of responsible government, the attorney-general of the State is the logical person to be charged with this duty; and if he would exert the powers of his office—through a deputy charged with the specific task of enforcing the medical practice law—the illegal practitioner would soon find his trade too dangerous for profit."

There can be no question that the State desires to protect its people by means of its police powers from all sorts of criminals, burglars, etc., and most assuredly some means should be taken by the State to protect the health of its inhabitants from quacks, charlatans, faddists and members of various cults who have had no preliminary training or education to qualify them for the treatment of disease. Means must be provided by the State whereby the health of the public will be protected from the illegal practitioner of medicine.

Safeguards should be created during this coming session of the legislature through the State taking prosecutions of illegal practitioners out of the hands of the political powers of a small community and placing the same in the hands of the State Attorney General, where such rightfully belong.

Up to the present time, it has been almost an impossibility to gain a conviction before a jury, save in the most flagrant violations.

J. N. V. V.

DEPARTMENT OF LAW

By George W. Whiteside, Esq.

IS A MEDICAL EXPERT WITNESS JUSTIFIED IN GIVING OPINION EVIDENCE BASED UPON LAY OBSERVATIONS OF MEDICAL PROCEDURES?

The doctor who is called as an expert witness for the plaintiff in a malpractice action against one of his brethren listens to a long hypothetical question made up by plaintiff's counsel. Upon the facts so stated he gives his opinion that the treatment as claimed by the plaintiff was not proper and approved, and that such treatment caused the bad result and injuries to the plaintiff.

The facts of the case assumed in the hypothetical question may all be false, or may consist of the plaintiff's defective and inexperienced observation of what the doctor's treatment was. The plaintiff may be ignorant, unable to read or write and very inexperienced in his understanding of the defendant doctor's treatment in the case. Nevertheless, the doctor expert for the plaintiff calmly assumes these statements are true and gives a medical opinion thereon, condemning the unfortunate defendant doctor. Thus is carried into the hands of the lay jury the most delicate and carefully nurtured possession of the defendant doctor—his reputation, skill, competency and possibly his honor. This doctor witness would not make a diagnosis of a case upon such flimsy or unreliable evidence, but he will thus ruthlessly destroy his fellow doctor without a blush or tremor. Do you think this state of affairs right? Do you think such testimony reflects credit on the doctor giving it?

Would you favor some discussion in this column of actual cases? If so, indicate your interest and let us have the benefit of your advice. We have some interesting cases in point.

There may be a remedy for this condition. The purpose of the State Society's insurance plan with the Aetna Life Insurance Company is to provide you with financial indemnity against this law hazard and also to seek a remedy for the condition that causes the hazard. Your constructive suggestions may be helpful. They will be welcome.

G. W. W.

PHYSICIANS ARE PROTECTED AGAINST THE UNAUTHORIZED USE OF THEIR NAMES

The State of New York has long had a statute which forbids the publication of untrue, deceptive or misleading advertisements. This statute is sufficiently broad to cover the advertisements circulated by certain chiropractors and other irregular and unlicensed practitioners of the healing art who offer to sell their services to the public.

Examination of many chiropractic advertisements shows that they are in some cases

untrue, in most cases deceptive, and almost universally misleading. The publication of such false advertisements constitutes a misdemeanor. Were the laws adequately enforced against those offending, there would disappear from the advertising columns of the newspapers throughout this State many advertisements which, whilst a lucrative source of gain to the newspapers and the chiropractors, are taking a daily toll of health and possibly of life of the public.

Most thinking people who read such matter, particularly scientifically trained physicians, usually go no further than to dismiss the exaggerated, misleading and deceptive claims with contempt, but the general public, lacking the understanding of the more analytical reader, falls an easy victim to the boastful propaganda.

Certain chiropractors and other unlicensed practitioners from time to time in their advertisements, to make their claims more convincing, have employed the names of reputable physicians without their consent by quoting from articles written or remarks made before medical meetings by such physicians. These quotations, standing apart from the context, appear to give support to chiropractic and kindred delusions. In such case the physician so quoted without his consent is placed in an entirely false light before the public and his reputation as a scientific man in his profession is seriously affected. This practice constitutes a wrong affecting the public generally, and also a personal injury to the physician whose name is so employed. Fortunately, the law provides such physician with an adequate and complete remedy, but one which does not appear to have been exercised. Article V, Sections 50 and 51 of the Civil Rights Law of this State provide in part as follows:

"A person * * * that uses for advertising purposes * * * the name, portrait or picture of any living person without having first obtained the written consent of such person * * * is guilty of a misdemeanor."

A violation of this provision would subject the offender upon conviction to a fine of \$500 or one year's imprisonment, or both. In addition to this effective remedy, the person whose name, portrait or picture is so used without his written consent may procure an injunction to prevent and restrain the use thereof, and may likewise recover compensation for the damages he may have sustained, and if the violation of the right appears flagrant the jury may award exemplary damages. Here we find the criminal law reaching out to imprison the offender, equity placing a firm restraining hand upon his continuance of the offense, and

the law assessing damages by way of compensation or punishment against him.

A physician who by reason of character, learning, skill and care has justly earned in his profession and with the public a good reputation, upon which is based respect, honors, professional and social position, as well as earning power, need not stand idly by and see his well-earned and richly merited rights flaunted, sordidly capitalized and selfishly exploited for the benefit of an empirical cult or one of its practitioners.

G. W. W.

ENFORCE THE MEDICAL PRACTICE ACT

The Medical Practice Act provides a penalty of the grade of misdemeanor for those who practice the healing art without a license. Chiropractors and other cult practitioners who hold themselves out as able to diagnose and undertake to diagnose or treat any form of disease or physical condition who have not a license so to do are guilty of a misdemeanor.

Article XI, Section 200, subdivision 4 of the County Law, provides:

"It shall be the duty of every district attorney to conduct all prosecutions for crime and offences cognizable by the courts of the county for which he shall have been selected or appointed. * * *"

As violations of the medical law constitute crimes cognizable by the courts of the county in which such crimes are committed, the district attorneys are charged in the law with the conduct of the prosecution of such crimes. If the district attorney should neglect his duty in this or other regards, he is subject to removal by the governor and, furthermore, the governor can, if he so desires, designate the attorney general to supersede the district attorney in a given case. (Executive Law, Sec. 62, subd. 2.)

The prosecuting officers have many laws to enforce. It is only fair that they be not criticized for non-enforcement of the medical laws unless their attention has been specifically directed to special cases. The medical law either becomes moribund by reason of non-use or vitalized by reason of use.

It is desirable that each county society, through its board of censors, ascertain whether the medical law is being violated in their districts and report cases of violation to the district attorney.

Enforce the Medical Practice Act!

G. W. W.

Forum for Correspondents

The Council at a meeting held in Albany, April 24, 1922, moved, seconded and carried

That the Journal be not used in any way suppress any expression of opinion; and that its correspondence columns be open for all proper communications; and that "proper" communications will be deemed those which are not slanderous or libelous in their nature.

Editor of the NEW YORK STATE JOURNAL OF MEDICINE:

At the Annual Meeting of the Medical Society of the State of N. Y. held May, 1923—The President, Dr. Booth, in his excellent Address, said:

"No Physician is fulfilling his mission who fails to contribute his share of moral support and influence for a medical solidarity," "who must be enlisted in the cause of humanity lest brains succumb permanently to brawn."

Dr. E. E. Harris, the able Speaker of the House of Delegates, recommended for adoption, and I believe it was adopted, the following Principles of Professional Conduct of the Medical Society of the State of New York:

DUTIES OF PHYSICIANS

HONOR OF THE PROFESSION

"One entitled to full professional fellowship, incurs an obligation to advance the Science and Art of medicine, to guard and uphold its high standard of honor, to conform to the principles of professional conduct and to comport himself as a gentleman."

HIGH MORAL CONDUCT

"The Medical Profession exacts from its members the highest type of character and morals. It is incumbent on Physicians to be temperate in all things, for the practice of medicine requires the unremitting exercise of a clear and vigorous mind."

DUTY TO THE SICK

"Physicians should be mindful of the responsibilities they incur in the discharge of their professional duties.

"They should never forget that the health and the lives of those entrusted to their care depend on skill and attention."

CONDUCT IN CONSULTATIONS

"All due respect should be observed toward the physician in charge of the case and no statement or remark should be made which would unjustly impair the confidence reposed in him."

VARYING THE TREATMENT AFTER CONSULTATIONS

"The attending physician may make such subsequent variations in the treatment as any unexpected change in the character of the case may require."

GUARDING THE MEDICAL PROFESSION

"Every physician should guard and protect the medical profession against the admission of those who are, either in moral character or education, unfit as professional associates."

These are a few excerpts of the Principles of Professional Conduct.

Now, dear editor, how can we have solidarity in the profession, when members of the state medical society are accusing medical practitioners of working against the public welfare? How can these principles be adhered to, when the attending physician is denied the right of using his best judgment as to what is best for his patient in a given case?

How can the public respect the medical profession, when men in the profession do not respect each other?

How can we stop quackery and charlatanism in medical science, when scientific medicine is accused of being quackery by some of its members?

The following language was used lately by medical men in public print:

"Many doctors think that purging with calomel and salts, etc., is best for their patients! No wonder that patients are sick under such treatment! Which is worse, the disease or the treatment, in such instances?"

"Until many medical practitioners become more scientific (?) there will continue to be less difference between the average medical practice and out-and-out quackery."

Another medical practitioner takes Dr. Lambert, the dean of the College of Physicians and Surgeons, to task for insisting upon the rights of the attending physician to prescribe for his patients any therapeutic agent which in his judgment is best for his patient!

I know that all the illegal practitioners are scanning the medical journals to find something written against the medical practitioners by a member of the fraternity. They then write in the lay press to prove that the medical profession is working against the interest of the public health! It therefore behooves the medical man to be careful of what he says and writes.

L. W. ZWISOHN, M.D.

249 W. 122d Street, New York City.

DEPARTMENT OF NURSES AND NURSING SARATOGA HOSPITAL, SARATOGA SPRINGS.

The drive for \$130,000 for the general fund, begun in September, has been wholly successful. Much of this sum will be used in the erection of a central heating plant for the present four separate buildings.

At the September graduation day of the Training School, seven pupil nurses took the Florence Nightingale Pledge and were received into the profession of nursing.

ARNOT-OGDEN MEMORIAL HOSPITAL, ELMIRA.

Miss Ola Mae Webster has resigned her position of supervisor of Women's Surgical Ward, because of ill health. Miss Gladys Thompson is acting supervisor.

Miss Esther Carlson has become assistant technician in the laboratory and X-ray department of the hospital.

Miss Minnie Welch, '21, was married to Frank Hart on October 19, and will reside in Williamsport, Pa.

Miss Maude Collins was recently married to Henry Diester, of Elmira.

Miss M. Emily McCreight, superintendent of the hospital, and Mrs. Caroline Prutsman, superintendent of nurses, attended the State Nurses' Convention at Buffalo in October.

The hospital held its 35th annual commencement for the Training School for Nurses on December 5, sixteen nurses graduating. On October 1st a class of nineteen probationers was admitted to the training school, the former Seafuse Hospital having been leased and remodeled for their residence.

NEW YORK STATE NURSES' ASSOCIATION.

The second annual meeting of the association was held in Buffalo on October 23, 24 and 25, at the Hotel Statler. The following papers were read: "Health Problems in Industry," by W. I. Arden, M.D.; "The Nursery School," by Miss Edna N. White, Detroit; "Behavior Problems of Pre-school Child," by Clara H. Towne, M.D.; "The Role of the Nurse in Public Health Nursing," by C. E. A. Winslow, of Yale University; "What Nursing Education Has Contributed Toward the Care of the Sick," by Miss Alice Gilman; "Nurse Training as an Educational Problem," by Albert T. Lyttle, M.D., and "Nursing Education in Canada," by Miss Jean Gow, R.N., of Toronto.

Bishop Brent delivered the address of welcome, and Mrs. Annie L. Hansen the president's address.

NOTES

RED CROSS ROLL CALL

The medical profession in New York City is cooperating actively with the Red Cross in its annual Roll Call, which opens Armistice Day, November 11, and continues until Thanksgiving, for the enlistment of new memberships to maintain the organization's manifold peace-time program of relief and public health work.

Dr. Frederick Tilney, 870 Madison Avenue, heads as chairman a special *Physicians and Surgeons* group, formed in accordance with the campaign plan of organizing the entire city into various industrial, mercantile and professional groups to facilitate the Roll Call effort. A special Roll Call committee of representative leaders in the medical profession will function under the chairmanship of Dr. Tilney to secure the maximum response to the Roll Call throughout the profession, and plans are already under way to reach every person in the profession directly with the Red Cross appeal.

Help for the ex-service man and his family, including legal assistance, loans of money, advice on domestic matters and medical care constitutes a major part of the work in New York for whose maintenance the annual Roll Call is conducted. The Red Cross activities in the city also include disaster relief and a public health program, among whose features are the supplying of surgical dressings to 22 local hospitals, nursing service, first aid, and work in home hygiene and care of the sick.

NEW YORK LARYNGOLOGICAL SOCIETY

The celebration of the 50th anniversary of the founding of the New York Laryngological Society at the New York Academy of Medicine on November 15, 1923 commemorated an event of unusual interest. As far as can be learned, this organization, now the Section in Laryngology of the Academy, is the oldest society in existence of the department which it represents.

In connection with the meeting there was an exhibit representing the important contributions made to the progress of Laryngology in the City of New York.

NEW YORK CANCER INSTITUTE

The Commissioner of the Department of Public Welfare of New York City has established a New York City Cancer Institute in conjunction with the City Hospital.

The Clinic Division of this Institute will be located at 124 East 59th Street and the Hospital Division will be on Welfare Island. In addition to Dr. Isaac Levin, Director of the Institute, there will be a staff of consulting, associate and assistant physicians and surgeons.

BRONX COUNTY SOCIETY

The Bronx County Society will celebrate its Tenth Anniversary on January 9, 1924, by a dinner and a dance at the new Concourse Plaza Hotel at the corner of the Concourse and 161st Street.

The Society has grown until it ranks fourth in size in the State—and its interesting meetings are largely attended.

An eight page News Bulletin is now published monthly, edited by a committee, composed of Philip Eichler, Chairman; E. Leonard Benjamin, Samuel Gitlow, I. H. Goldberger and Harry Shiffman.

PRUNES

(Contributions solicited)

Better than Ponce de Leon's Fount

In the showing is a suit any man can wear with the assurance that the cut of his clothes is exactly in accordance with the accepted ideas in the leading style centers. Particular attention has been given to student requirements. Many models are shown redolent with the spirit of youth that come with two pairs of trousers.—*From a clothing ad. in the Arizona Daily Star (Tucson, Ariz.).*

Quaint New York Custom

An old edition of Morse's geography declares that "Albany has four hundred dwelling houses and twenty-four hundred inhabitants, all standing with their gable-ends to the street."—*Quoted from a scrap-book by a resident of Boyds, Md.*

Pierre and Teenom

By David H. Livingston

Teenom have been felt bad in the middle a long, long time. So, the next time he pass himself to town he talk wid the doctor. When the doctor have finish his exam' wid Teenom, that Louisiana Cajun wrinkle his face up and say, "Doggone!" Then he hurry up fast home.

"What the doctor tell you to do?" Pierre ax Teenom.

"My goodness!" say Teenom, "that doctor tell me I must do way wid my appendix!"

"You have decide to do that, eh?" Pierre ax.

"*Eh, bien, Pierre!*" say Teenom, almost cry, "if I don't wear no appendix no more, how am I going to keep my pants up?"

Crawford—The growth of motoring must have brightened up the place where you live.

Crabshaw—Surest thing you know. We must either eliminate the grade crossing or enlarge the hospital.

The Time of Trial

"Do you have to see a doctor before you get booze in this town?"

"No, afterwards."—*Harvard Lampoon.*

Delays Are Dangerous

Guest—"I wish I had come here a week ago."

Hotel Proprietress—"Ah! You are flattering to my establishment."

Guest—"What I mean is that I should have preferred to eat this fish then instead of now."—*London Opinion.*

Why Be Well?

Jud Tunkins says patent medicine ads are so attractive that it makes a man who has his health feel like he was missing something.—*Washington (D. C.) Evening Star.*

Dear Teacher—Please excuse Willie's absence for the last two days; he caught a skunk.—*Mass. Ag. Squib.*

Significant Omission

He tried to cross the railroad track
Before a rushing train;
They put the pieces in a sack,
But couldn't find the brain.

—Sarasota Times.

Six Stock Salesmen to Avoid

The *Northwestern Banker* (Des Moines) puts a deal of good advice into small compass when it tells its readers that the six stock salesmen for the investor to avoid are:

The man who tells you how stockholders in similar concerns became rich over night.

The man who wants your help in "keeping the contract away from Wall Street."

The man who talks about the "transferability" of the stock.

The man who says that the stock will later be "listed on the exchange."

The man who wants you to buy because "the price is surely going up."

The man whose chief selling points are letters of recommendation from "leading citizens."

They were conversing on the Darwin Theory.

He—Just think, according to Darwin's Theory, your grandfather might have been an ape.

She—That doesn't worry me.

He—No, but I'll bet it would have worried your grandmother.—*Carnegie Puppet.*

Doctor—Your wife needs a holiday at a spa.

Husband—Indeed! I'd like you to know that I could get a brand new wife for far less than she costs me for repairs.—*Hvepsen (Christiania).*

Doubtful

"Can I sell you a set of Shakespeare?" asked the affable agent.

"I don't think so," replied the patient person, "but I won't say for sure. After thinking over a lot of things I've been persuaded to buy, almost anything seems possible."—*Washington Star.*

Durable, Anyway

For Sale—200 year-old White Leghorn hens, 75c each. LaSalle 63R6.—*Greeley (Colo.) Tribune.*

Built to Order

"What's the matter with Smith? Got lumbago or spinal curvature or something?"

"No, he has to walk that way to fit some shirts his wife made for him."—*Exchange.*

Impossible.

Doctor—"Put out your tongue—more than that—all of it."

Child—"But, doctor, I can't. It's fastened at the other end!"—*Le Rire (Paris).*

Why He Quit.

"That's Bill Fligh, the aviator. He's the guy that used to write ads in the sky in smoke."

"Isn't he doing that any more?"

"No, had to give it up. He got writer's cramp."—*American Legion Weekly.*

Unfair Discrimination.

"Oh, no!" soliloquized Johnny bitterly; "there ain't any favorites in this family. Oh, no! If I bite my finger-nails, I get a rap over the knuckles, but if the baby eats his whole foot, they think it's cute."—*Ladies' Home Journal.*

Medical Society of the State of New York District Branches

FIRST DISTRICT BRANCH

ANNUAL MEETING, TUXEDO PARK, N. Y.,
TUESDAY, OCTOBER 16, 1923

The meeting was called to order by the President, Dr. Rushmore, in the Tuxedo Club at 11:40 A. M.

The minutes of the meeting of the Branch held at Yonkers were read by the Secretary and approved as read.

Dr. Rushmore then addressed the meeting, taking for his topic "The Functions of the District Branches of the State Society." He called attention to the fact that both the meetings of the State Medical Society and the meetings of the County Societies were largely devoted to scientific papers and no provision is usually made for discussion of matters relating to the social, economic and legislative questions often confronting the medical profession. Therefore, in his opinion, and with which the State Medical Society through its Council agrees, the function of the district branches should be to attend to the relations of the members of the medical profession to each other and to the public, especially in regard to educating the people regarding many of the problems of social welfare work, proper legislation, etc., which arise.

Dr. Spencer L. Dawes, of the State Hospital Commission, was introduced and spoke at some length upon the necessity of more room in the hospitals of the State where insane, feeble-minded, epileptic and others were compelled to remain, also in regard to inadequate fire protection in these institutions. He urged the physicians present to support and urge upon the voters of the State to vote for the proposed \$50,000,000 bond issue to provide additional room for the wards of the State.

Dr. Robert C. Woodman, Superintendent of the Middletown State Hospital, presented the following resolution:

RESOLVED, That, because of the evident need of additional and safer accommodations for the insane and other charitable institutions of the State of New York, that the First District Branch of the Medical Society of the State of New York approves of the pending issue of bonds for that purpose by the State under Proposition No. 1, before the voters for approval.

Resolution seconded by Dr. Card of Poughkeepsie and unanimously carried.

Dr. Harold E. B. Pardee of New York read a paper entitled "Observations on the Use of Digitalis and Quinidine."

Discussed by Drs. Corder of Middletown, Toms of Nyack, Jacobson of Newburgh, and Waldron of Yonkers.

Adjournment was taken for a luncheon, which was enjoyed by about eighty physicians.

The afternoon session was opened at 2:30 P. M., Dr. Rushmore presiding.

Dr. Orrin Sage Wightman, president of the Medical Society of the State of New York, gave an address dealing largely with the economic side of professional life, the necessity of building up a larger and stronger State Medical Society in keeping with the dignity of the profession, which would require increased dues. The STATE JOURNAL needs enlargement in order to deal with medico-legal problems, conduct an open forum, and additional news items, but without an increase in the dues this would be impossible. He advocated also pay by the State for all doctors on the staffs of hospitals who were now serving for charity, the money to be supplied either by the municipalities or the

counties. He also urged closer and more harmonious relations with the State Department of Health in regard to the economic problems confronting the profession.

Dr. E. Livingston Hunt, secretary of the Medical Society of the State of New York, urged upon the members present the need of raising the dues to \$10 to provide for a paid editor of the JOURNAL, more office help, legal adviser, better organization of the District Branches, etc.

Dr. Hunt stated that the sixth, seventh and eighth District Branches had voted to increase the dues to \$10, and he hoped that some resolution would be passed by the First District Branch to that effect. The membership of the Society should be increased, as at present only 10,000 of the 16,000 physicians of the State were members. An effort should also be made to make the meetings of more interest, so that the younger men would not absent themselves, as at present.

Dr. Joseph A. Blake of New York read a paper on "The Campaign for the Better Treatment of Fractures."

This paper was discussed by Drs. J. B. Hulett, Middletown; G. A. Leitner, Piermont; M. A. Stivers, Middletown; J. G. Howell, Newburgh; E. G. Cuddeback, Port Jervis; J. C. Dingman and C. C. Francis, New York City; E. C. Rushmore, Tuxedo; C. J. Redfield, Middletown.

Dr. George M. Mackenzie of New York read a paper entitled "Serum Accidents and Their Prevention."

After some discussion of this paper, Dr. S. E. Getty moved that a vote of thanks be given the members of the Tuxedo Club for their hospitality, seconded by Dr. Dingman and carried.

Dr. Waldron moved that a vote of thanks be tendered the readers of papers, seconded by Dr. Getty and carried.

FIFTH DISTRICT BRANCH

ANNUAL MEETING, SYRACUSE, OCTOBER 25, 1923.

The meeting was called to order at the Onondaga Hotel, by the President, Dr. Walter H. Kidder.

The following officers were elected for two years: President, Nelson O. Brooks, Oneida; First Vice-President, Charles Post, Syracuse; Second Vice-President, Page Thornhill, Watertown; Secretary, William J. Mc-Nerney, Syracuse; Treasurer, F. E. Fox, Fulton.

A resolution to endorse the proposition to be voted on at the coming election, to build more adequate, up-to-date and fire-proof buildings for Hospitals housing patients suffering from mental disorders was passed.

Dr. Orrin Sage Wightman, New York, President of the State Society, and Dr. Edward Livingston Hunt, New York, Secretary of the State Society, gave talks relating to State Society business and showed ways and means by which with the co-operation of the members the work of the Society might be greatly improved.

"The Effects of X-ray on the Various Forms of Infection," William D. Witherbee, M.D., New York City.

"Some Studies in Acetonuria and Acidosis," Roger S. Hubbard, Ph.D., Clifton Springs.

"Some Difficult Problems in the Diagnosis and Surgical Treatment of Goitre," Martin B. Tinker, M.D., Ithaca. Discussion opened by Frederick Flaherty, M.D., Syracuse.

Luncheon by invitation of the Medical Society of the County of Onondaga at Onondaga Hotel.

"Our Northern Chronic Dysenterics," Walter A. Bastedo, M.D., New York City. Discussion opened by Clayton W. Greene, M.D., Buffalo.

"The Diagnosis and Rational Management of the Hemorrhages of the Later Months of Pregnancy and the First Stages of Labor," Lantern Slides. John Osborn Polak, M.D., Brooklyn. Discussion opened by Eugene W. Belknap, M.D., Syracuse.

EIGHTH DISTRICT BRANCH

ANNUAL MEETING, BUFFALO, OCTOBER 4, 1923

The meeting was called to order in the Hospital Auditorium by the president, Dr. Trick.

Dr. Lyman C. Lewis of Belmont was appointed secretary pro tem.

Moved and seconded that the minutes of the last meeting be adopted as printed in NEW YORK STATE JOURNAL OF MEDICINE. Carried.

The following officers were elected for two years: President, Harry R. Trick, Buffalo; first vice-president, George W. Cottis, Jamestown; second vice-president, Howard A. Maynard, Medina; secretary, William Warren Britt, Tonawanda; treasurer, Fitch H. VanOrsdale, Belmont.

The following resolution was adopted:

Whereas, the members of the Eighth District Branch of the Medical Society of the State of New York, appreciating the greatly over-crowded State institutions and the fact that wards of the State are housed in buildings not free from fire hazard, and realizing that these unfortunate people need to have expended in their behalf large sums of money, it is hereby

RESOLVED, That we, as physicians, support the steps being taken towards securing the affirmative vote of the electors to the proposition that authority be given to bond the State for fifty million dollars, the money so obtained to be spent in the betterment of the housing conditions existing in New York State Institutions.

It was voted that the secretary be instructed to extend the thanks of the Society to the Board of Managers of the Buffalo City Hospital.

The following resolution was adopted:

RESOLVED, That it is the sense of the Eighth District Branch that the State assessment of \$5 is too little for effective work and that it favors an increase of the annual assessment to at least \$10 at this time.

Address: Orrin Sage Wightman, M.D., New York, President, Medical Society of the State of New York.

Address: Edward Livingston Hunt, M.D., New York, Secretary, Medical Society of the State of New York.

Address: Franklin H. Martin, M.D., Chicago, Director-general, American College of Surgeons.

Paper: "Plastic Reconstruction of Form and Function of Arm and Hand." Lantern and film demonstration, Carl Beck, M.D., Chicago, Ill.

A standing vote of thanks was extended Dr. Beck for his paper.

The meeting then adjourned for luncheon.

The afternoon session was called to order by the president, Dr. Trick.

Illustrated Lecture on Tuberculosis by Harry A. Bray, M.D. Ray Brook.

Illustrated Lecture: "The Prostate as a Surgical Problem," Hugh M. Young, M.D. Baltimore, Md.

A rising vote of thanks was extended to all visiting speakers.

Medical Clinic, Frank Smithies, M.D., Chicago.

A subscription dinner was served at 7 P.M., at which nearly two hundred were in attendance.

County Societies

BRONX COUNTY MEDICAL SOCIETY

REGULAR MEETING, OCTOBER 17, 1923

The meeting was called to order in Bronx Castle Hall at 9 p.m. The president, Dr. Leiner, in the chair.

The minutes of the last regular meeting of the society were read and approved. The minutes of the last regular meeting of the Comitia Minora were read for the information of the Society.

Election of candidates being in order, it was moved by Dr. Rost and carried that the secretary be instructed to cast one ballot for the following applicants for membership: Joseph M. Chasick, Moses L. Gottlieb, David Greene, Solomon P. Schechter, Lewis J. Siegal, Henig Silberschlag, P. Albert Stahl and Louis Weinstein. Ballots having been duly cast the doctors were declared elected.

Dr. Eichler reported for The Bulletin Committee and appealed for the co-operation of all the members. The President also appealed on behalf of The Bulletin.

The President announced that the Decennial Banquet and Dance will be held on January 9th, 1924, at 7 p.m., at the Concourse Plaza.

The President also announced that there is in formation a so-called Medical Section.

SCIENTIFIC PROGRAM: *Clinical Meeting*

Bronx Hospital:

Interesting Case of Skin Grafting of the Palm of the Right Hand (illustrated by lantern slides), Martin J. Loeb. Discussion by Drs. Sidney Cohn and Janes.

Tubercular Infection of a Post Operative Wound and Tubercular Adenitis of the Groin and Axillæ. Cured by X-Rays and the Quartz-mercury Lamp, Samuel Feldman. Discussion by Dr. Rostenberg.

Lebanon Hospital:

Purpura Hemorrhagica during the Post Partum Period, Carl Goldmark and A. W. Jacobs. Discussion by Drs. J. B. Cohen, Rost and Ginzburg.

Submaxillary Salivary Calculus, Milton R. Bookman. Discussion by Dr. Loeb.

Lincoln Hospital:

Nephritic Toxemia, Edward T. Hull. Discussion by Drs. Smiley, Rosenfeld, H. J. Epstein and Krellenstein.

A Case of Compound Fracture of Femur treated by Skeletal Traction and Dakin Dressing, Fenwick Beekman. Discussion by Drs. Bookman, Mark Cohn and Boorstein.

Montefiore Hospital:

A Case of Primary Intestinal Tuberculosis, J. L. Kantor. Discussion by Drs. Gettinger and Goldmark.

A Case Showing Development of a Spinal Cord Lesion, S. P. Goodhart. Discussion by Dr. Leiner.

St. Francis Hospital:

Congenital Hypertrophic Stenosis of the Pylorus: Operation, Francis C. Edgerton. Discussion by Drs. Rost, Popper, Goldman, Blauner and Sidney Cohn.

Destruction of Liver and Hyperplasia after Injection of Salvarsan, Francis C. Edgerton. Discussion by Drs. Horwitt, Zigler, Rostenberg and Goldman.

It was moved and carried that the thanks of the Society be extended to the gentlemen who presented the cases. Carried.

MEDICAL SOCIETY, COUNTY OF DELAWARE

ANNUAL MEETING, OCTOBER 9, 1923, DELHI

A quorum being present, the meeting was called to order with eleven members present.

The following officers were elected for 1924:

President, William B. Morrow, Walton; vice-president, Thomas L. Craig, Davenport; secretary-treasurer, John E. Safford, Stamford; delegate to State Society, for two years, John E. Safford, Stamford; alternate to State Society, for two years, Thomas L. Craig, Davenport.

Matters pertaining to the building up and strengthening of the Society were discussed and a resolution calling for a meeting and banquet for all the physicians of Delaware County to be held early in November was passed.

The meeting was then adjourned subject to call.

SCHOHARIE COUNTY MEDICAL SOCIETY.

ANNUAL MEETING IN COBLESKILL, OCTOBER 30, 1923.

Business Session was called to order in the high school at 10:30 A. M. The following officers were elected for 1924:

President, W. Staats Pomeroy, Gallupville; vice-president, Lyman Driesbach, Middleburgh; treasurer, LeRoy Becker, Cobleskill; secretary, Herbert L. Odell, Sharon Springs; censor, W. T. Rivenburgh, Middleburgh; legislative committee, H. R. Bentley, chairman, Central Bridge; H. J. Wright, L. R. Becker and C. L. Olendorf; delegate to State Society, H. R. Bentley, M. D., Central Bridge; alternate, W. S. Pomeroy, M.D., Gallupville.

A motion was made and unanimously adopted favoring the proposition to be presented at the coming Election that the State appropriate \$50,000,000 for the purpose of safely and properly housing the wards of the State.

Dr. Sidney Burnett Tryon was elected to membership.

Following the business session the meeting adjourned for dinner which was served at the Hotel Augustin.

The Scientific Program was held in the Park Theatre and was one of the most interesting and educational programs ever presented before a body of physicians in this County. It consisted of the following:

"Acidosis and Alkalosis," Prof. Victor Myers, Director of the Department of Biochemistry, New York.

Presentation of Motion Pictures as made at the Wertheim Clinic in Vienna by the late Prof. Wertheim and Prof. Weible on Obstetrics and Pregnancy:

1. Clinical examination for pregnancy.
2. Abnormalities of skeleton.
3. Normal delivery.
4. Breech presentation.
5. Face presentation and delivery.
6. Resuscitation of a child.
7. Walcher posture.
8. Eclampsia.
9. Breech presentation with extraction of child.
10. Podalic version from head presentation and extraction of fetus by the foot.
11. Extraction of the dead fetus by the foot with perforation of the aftercoming head.

12. Craniotomy.
13. Forceps delivery.
14. Cæsarean section.
15. Cæsarean section with hydramnios.
16. Examination of prolapse of uterus.
17. Removal of ovarian cyst by laparotomy.
18. Wertheim Operation for Cancer of the Uterus, showing photographs with the Rothe Camera magnifying the field of operation fifty times and showing even the point of the needle.

SUFFOLK COUNTY MEDICAL SOCIETY

ANNUAL MEETING, RIVERHEAD, OCTOBER 25, 1923.

The Annual Meeting of the Suffolk County Medical Society was held in Riverhead, October 25th, 1923, with twenty-five members present out of the ninety members of the Society.

A budget of expenses was adopted as follows:

Monthly News Letters.....	\$150.00
Clerical Hire.....	100.00
Legislative Committee.....	100.00
Meetings	50.00

Total\$400.00

In order to meet the budget the annual dues were raised to five dollars.

The following physicians were elected to membership:

Drs. Edna B. Dayton, Remsenburg; A. C. Matthews, Kings Park; G. K. Oxholm, Sayville; John B. Healy, Babylon; J. Raphael Herradora, Holtsville.

The following officers were elected for 1924:

President, A. G. Terrell, Riverhead; Vice-President, G. H. Schenck, Southhampton; Secretary, Frank Overton, Patchogue; Treasurer, G. H. Hallock, Southhampton.

The Secretary reported that the Society had conducted several activities during the past year, among which were the following:

Two meetings held with an average attendance of thirty-five members.

Six News Letters prepared and distributed.

Two clinics held under the auspices of the Society.

Active and effective work done by the Legislative Committee.

Representation at the meeting of the Governor's advisory committee in Albany.

Regular monthly meetings of four subsidiary societies, —one in each corner of the County.

The active support of public health projects, including nine tuberculosis clinics and three children's consultations, by the members.

A strong plea for the support of the proposed \$50,000,000 State Bond Issue for the care of the wards of the State was made by Dr. R. E. Blaisdell of the Kings Park State Hospital. The Society voted to work for the issue on Election Day.

The subject of Graduate Medical Education was presented by Dr. Charles A. Gordon, Chairman of the Joint Committee on Graduate Medical Education of the Kings County Medical Society and the Long Island College Hospital. This is the most comprehensive and practical plan that has yet been devised. It is fully described in the October issue of the *Long Island Medical Journal*. The Periodic Medical Examinations was mentioned as a subject in which a graduate course would be given.

The legislative work of the Professional Guild of Kings and Queens counties was described by its President, Dr. Herbert D. Schenck of Brooklyn. He enumerated important results which had been accomplished by influencing voters to support candidates who were favorable to scientific medicine.

Books Received

Acknowledgment of all books received will be made in this column, and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interest of our readers.

PAPERS ON PSYCHO-ANALYSIS. By ERNEST JONES, M.D., M.R.C.P. (Lond.) President of the International Psycho-Analytical Association and of the British Psycho-Analytical Society. Editor of the International Journal of Psycho-Analysis. Third Edition. William Wood & Co., New York, 1923.

BROPHY. "CLEFT LIP AND PALATE." 466 Illustrations and a number of colored plates. Cloth \$6.00. By TRUMAN W. BROPHY, M.D., D.D.S., Sc.D., President and Professor of Oral Surgery, Chicago College of Dental Surgery. Published by P. Blakistons Son & Co., Philadelphia, Pa.

INTERFACIAL FORCES AND PHENOMENA IN PHYSIOLOGY, being the Herter Lectures in New York in March, 1922. By SIR WILLIAM M. BAYLISS, M.A., D.Sc., F.R.S., LL.D., Professor of General Physiology in University College, London. With seven diagrams. E. P. Dutton & Company, New York.

CONSTRUCTIVE CONSCIOUS CONTROL OF THE INDIVIDUAL. By F. MATTHIAS ALEXANDER, Author of "Man's Supreme Inheritance," with an introduction by Prof. John Dewey. E. P. Dutton & Company, New York.

HABITUAL CONSTIPATION: ITS CAUSES, CONSEQUENCES, PREVENTION AND RATIONAL TREATMENT. By ISMAR BOAS, M.D., Translated by Thomas L. Stedman, M.D., 12 Mo. Cloth, 299 pages. \$2.00 net. Funk & Wagnalls Company, Publishers.

EXERCISE FOR HEALTH AND CORRECTION. By FRANK D. DICKSON, M.D., and REX L. DIVELEY, M.D. J. B. Lippincott Company, Philadelphia and London, \$2.00.

THE CHEMICAL BASIS OF GROWTH AND SENESCENCE. By T. BRAILSFORD ROBERTSON, Ph.D., D.Sc., Professor of Physiology and Biochemistry, University of Adelaide, South Australia. J. B. Lippincott Co., Phila. and London.

RUBBER AND GUTTA PERCHA INJECTIONS. Subcutaneous Injections of Rubber and Gutta Percha for Raising the Depressed Nasal Bridge and Altering External Contours. By C. C. MILLER, M.D., Chicago, 1923. Oak Printing Co., Chicago. Price, \$1.75.

PAPERS FROM THE MAYO FOUNDATION FOR MEDICAL EDUCATION AND RESEARCH. The Graduate School of the University of Minnesota, Vol. II, 1921-1922. Octavo volume of 716 pages with 257 illustrations. Phila. and London, W. B. Saunders Co., 1923. Cloth, \$10.00.

EXCURSIONS INTO SURGICAL SUBJECTS. By JOHN B. DEEVER, M.D., Sc.D., LL.D., F.A.C.S., and STANLEY P. REIMANN, M.D. Octavo volume of 188 pages with 30 illustrations. Phila. and London, W. B. Saunders Co., 1923. Cloth, \$4.50.

SURGICAL CLINICS OF NORTH AMERICA. August, 1923, Vol. III, Number 4. Chicago Number. Published Bi-Monthly by the W. B. Saunders Company, Philadelphia. Price per year (Paper), \$12.00.

HISTORY OF THE GREAT WAR BASED ON OFFICIAL DOCUMENTS—MEDICAL SERVICES PATHOLOGY. Edited by Major-General Sir W. G. Macpherson, K.C.M.G., C.B., LL.D., Major-General Sir W. B. Leishman, K.C.M.G., C.B., F.R.S., LL.D., and Colonel S. L. Cummins, C.B., C.M.G., LL.D. London, His Majesty's Stationery Office, Imperial House, Kingsway, W. C., 2, 1923. Octavo of 600 pages, illustrated. Cloth, 21s.9d.

MEDICAL CLINICS OF NORTH AMERICA. September, 1923, Vol. VII, Number 2. Chicago Number. Published Bi-Monthly by the W. B. Saunders Company, Phila. and London. Price per year (Paper), \$12.00.

Book Reviews

DISEASES OF THE GUMS AND ORAL MUCOUS MEMBRANE. By SIR KENNETH GOADBY, K.B.E., M.R.C.S., L.R.C.P., D.P.H. (Contab). Lecturer on Bacteriology of the Mouth, Dental Department, University College Hospital. Oxford University Press. Price, \$14.00.

In the opinion of the reviewer, this book is the one most needed in the medico-dental literature. Its pages are full with records of clinical experience, based on intensive study and scientific research over a period of twenty years of active practice. The arrangement and presentation of the subject-matter in this book deserves a good deal of praise for the clearness and sequence of the chapters, that anchor your interest in the book from the beginning to the very end. With the references after each chapter and the magnificent colored plates and illustrations this book can be considered as a complete compendium on the subject, furnishing an abundance of valuable information to the physician as well as to the dentist. This book will surely bring about a much closer relationship between physician and dentist than many joint meetings of their societies. It gives to both professions the practical working bases for co-operative activities. It takes the dentist out of his narrow sphere of individual tooth repair and brings him into the elaborate problems of general health. It takes the physician from the most complicated conditions of general health to the apparently insignificant individual pyorrhea pus pocket or periapical chronic abscess or hidden sinus infection as the underlying cause of these complications.

That oral foci of infection cause many systemic diseases is well established by the author, but he also does not neglect to show that there are many general systemic conditions which affect the gums and oral mucous membranes.

He is extremely careful in making his diagnosis by using every modern laboratory method in establishing the relation of a focus of infection to the systemic disease and his methods of treatment are conservative.

Very well are the chapters on periodontia and alveolar abscess, where the author uses all the weight of his scientific knowledge, practical experience and strong logic to curb the unnecessary ruthless sacrifice of the dental organs, that are so important for the general health of every individual. VICTOR STOLL.

HELIO THERAPY. By A. ROLLIER, M.D., with collaboration of A. ROSSELET, D.Sc., M.D., H. J. SCHMID, M.D., E. AMSTAD, M.D. With forewords by SIR JOHN HENRY GAUVAIN, M.A., M.D., M.R.C.S., L.R.C.P., and CALEB WILLIAMS SALEEBY, M.D., F.R.S. Oxford University Press, 1923. Price, \$8.00.

In this text of Dr. A. Rollier, we have his first work on this subject published in English. Sir John Henry Gauvain and Dr. Caleb Williams Saleeby have each contributed forewords that are enthusiastic and inspiring. Dr. Saleeby speaks of smokeless New York, comparing it with London; alas, if he could but see us now. What the coal strike has cost New York, both in health and happiness, can be realized only after reading this work.

The book is arranged in this manner: first the forewords, then a brief historical chapter, followed by a general consideration of the therapeutic action of the sun bath. General technic is next considered, and is followed by regional therapy in tuberculosis. The last part of the book is taken up with the scientific basis of heliotherapy.

Dr. H. J. Schmid contributes a chapter on the radiological diagnosis of tuberculosis, and Dr. E. Amstad considers in the final chapter the non-tuberculous lesions. Throughout the work, there is an interesting citation of cases.

It is the reviewer's hope that many medical men will read this invaluable work, whatever may be their special

division of medicine. Sunlight makes life on this sphere possible. Heliotherapy can restore many of us back to life and health, if properly and understandingly directed. It costs nothing but care, and repays manifold in the restoration of the stricken body to normal.

J. C. R.

A REFERENCE HANDBOOK OF THE MEDICAL SCIENCES, embracing the entire range of Scientific and Practical Medicine and Allied Science. By various writers. First and Second Editions edited by ALBERT H. BUCK, M.D. Fourth Edition, revised with numerous additions, edited by THOMAS LATHROP STEDMAN, A.M. M.D. Eight Volumes. William Wood & Co., New York, 1923.

This is the fourth edition of the well-known Reference Handbook, consisting of eight volumes which are well bound, and superbly, as well as profusely, illustrated.

The physician who has cast his lot in the larger cities where well-equipped and up-to-date medical libraries are at hand, cannot appreciate reference works, such as this one, nearly as well as his brother practitioner who has not access to such veritable gold mines of medical knowledge. The country and small town doctor keeps himself surprisingly well informed as to current medical progress, but when he meets an unusual case or wishes to write a paper on any subject he finds the need of reference works.

These will provide him not only with the present status of our knowledge of any given phase of the practice of medicine, but also with the original researches on which such information is based, together with the story of the lines along which study progressed.

Therefore, current journals and year books, while extremely valuable, will never displace reference works which still must continue to have a definite and recognized place in the physician's library.

W. H. D.

ASTHMA. By FRANK COKE, F.R.C.S. With frontispiece in color and other illustrations. William Wood & Co., New York, 1923.

This is a book written in a delightfully readable fashion by a physician well qualified from personal experience to undertake such a task, and to the specialist in sensitization work, the internist, and the practitioner of medicine alike will afford instructive reading matter.

It reviews in a clear and concise manner the many theoretical problems involved in connection with asthma and cites much experimental work carried on in trying to overcome this malady.

There are splendid chapters dealing with the technic of protein tests, an analysis of the results obtained in some hundreds of cases on whom the tests have been tried showing the proteins that most frequently cause a reaction, and the methods of using specific and non-specific protein and vaccine therapy, filled with numerous practical points.

It is an excellent review of the problem of asthma to date.

CHARLES E. HAMILTON.

TRANSLATION OF SELECTED PASSAGES FROM DE L'AUSCULTATION MÉDIATE. (First Edition.) By R. THEOPHILE H. LAENNEC, with a Biography by SIR WILLIAM HALE-WHITE, K.B.E., M.D., Consulting Physician Guy's Hospital. Medical Classics Series. William Wood & Co., New York, 1923. Price, \$3.75.

This volume contains a good photograph and detailed biography of Laennec. Excellent translations of the more important passages of Laennec's two volumes of "De l'Auscultation Médiate" published in 1819 are given. The passages discuss the mechanics of auscultation, tuberculosis, bronchiectasis, pneumonia, gangrene, emphysema, pleurisy, pneumothorax, edema of lung, etc.

After a thorough perusal, one can readily appreciate the genius of Laennec, who wrote this masterpiece of original observation at the early age of 38, and died an untimely death of tuberculosis at 47.

M. A. R.

THE OPERATIVE TREATMENT OF GLAUCOMA. By H. HERBERT, F.R.C.S., Eng., Lieut.-Col. Indian Medical Service, Retired; in charge of the Cowasjee Jehangir Ophthalmic Hospital, Bombay; Consulting Surgeon, Nottingham and Midland Eye Infirmary; William Wood & Co., New York, 1923. Price, \$3.00 net.

This estimable little book seems to have been so well reviewed in the preface that we feel that the author has been peculiarly able to gauge the merits and defects of his own labors.

As he says, the book is but intended to supplement what is to be found on the subject in standard textbooks, and though we feel it has been written by uniting various brief monographs, yet as a whole each chapter leaves its morsel for profitable rumination.

Nevertheless, without having made a special study of the subject, the reviewer feels that the author is slightly over-enthusiastic in stressing so heavily an operation in which he seems to have taken particular interest. We have the impression that the advantages and disadvantages are stated at the expense of the enumeration of facts from which the reader may draw his own conclusions.

A decidedly good impression remains, however, of the iris-inclusion operation, and a store of answers to many of those annoying little questions not found in textbooks are included.

The author's style is pleasingly direct and to the point, without being at all difficult to read. Altogether, the reviewer feels that this little volume is entitled to a place in the ophthalmologist's library on the same shelf with Colonel Elliot's work, though a little further to the right, as its function is decidedly supplementary.

J. N. E.

ENVIRONMENT AND RESISTANCE IN TUBERCULOSIS. A presentation of the nature of environment and resistance and their relation to the pathology, diagnosis, symptoms and treatment of tuberculosis. By ALLEN K. KRAUSE, A.M., M.D., Associate Professor Medicine, Johns Hopkins University. Williams & Wilkins Co., Baltimore, Md., 1923. Price, \$1.50.

This is the second of two little volumes recently written by Dr. Krause of Baltimore. The first was "Rest and Other Things," upon which we have previously commented. It is no exaggeration to say that among the present-day investigators in the field of experimental tuberculosis, Krause is one of the leading figures—a peer. He has been a heavy contributor to the sum of the world's knowledge of this subject. He has, too, a particularly fortunate manner of presenting his subject. He has that rare attribute in a scientific writer—a lucid, convincing, and one may say even an entertaining style. His essays, therefore, have deservedly a wide appeal.

In "Environment and Resistance," he has achieved a masterpiece. It should be eagerly sought by every student and practitioner of medicine, whether particularly interested in tuberculosis or not. To be abreast of present-day best thought in medicine, one cannot afford to miss it.

FOSTER MURRAY.

THE COLLOIDAL STATE IN ITS MEDICAL AND PHYSIOLOGICAL ASPECTS. By SIR WILLIAM M. BAYLISS, F.R.S., M.A., D.Sc., LL.D. Oxford University Press, 1923. Price \$2.15.

This most instructive monograph clarifies in concise descriptive style our knowledge of the properties of colloids and brings out the interesting connection between colloids and their relation to living matter. The scope of the work includes a consideration of the phenomena of precipitation and peptonization, osmotic pressure and its physiological bearings, viscosity, and of anaphylactoid states as distinguished from immunity. One chapter is devoted to the nature of proteins and hemoglobin.

HENRY M. FEINBLATT.

REST AND OTHER THINGS. A little book of plain talks on tuberculosis problems. By ALBERT K. KRAUSE, A.M., M.D., Associate Professor of Medicine, Johns Hopkins University. Williams & Wilkins Company, 1923. Baltimore. Price, \$1.50.

This is a collection of essays written by Dr. Krause, each of which has appeared either as an editorial in the *American Review of Tuberculosis*, or as a contribution to one of the current medical magazines. They are mostly written in a broad, philosophical vein, dealing with the many problems associated with the battle on tuberculosis. To one interested in this subject, a publication by Krause is of prime importance, for no one working in this field wields a more fascinating and illuminating pen. The book will be eagerly sought, not only by all students of tuberculosis, but also by those of medicine in general and of public health in particular. One closes the book with much the same mental attitude as friend Oliver on finishing his bowl of porridge. Fortunately that "more" is provided in another volume, entitled "Environment and Resistance."

FOSTER MURRAY.

NON-SURGICAL DRAINAGE OF THE GALL TRACT. A Treatise Concerned with the Diagnosis and Treatment of Certain Diseases of the Biliary and Allied Systems, in their Relation to Gastro-Enterology and General Clinical Medicine. By B. B. VINCENT LYON, A.B., M.D. Octavo of 640 pages, with 175 engravings and 10 colored plates. Philadelphia and New York, Lee & Febiger, 1923. Cloth, \$10.00.

It is unfortunate that the title of this very excellent book makes it appear that it is devoted to the consideration of such a narrow and much-criticized subject as so-called "non-surgical biliary drainage." While the last 125 pages are devoted to detailed reports of cases cured of all manner of diseases by the method, and while the method is described and defended in great detail, yet the most valuable portions of the book are devoted to a clear, comprehensive discussion of the most modern and scientific conceptions of gastro-intestinal physiology, diagnosis and treatment. The chapters on histology and anatomy of the liver and biliary system and on the history of gall-tract disease are admirable and show the results of careful reading and research. The chapter on X-ray diagnosis by MANGES is as fine as any in the literature. The book is certainly a valuable contribution to gastro-enterological lore.

A.

ENDOCRINE DISEASES, INCLUDING THEIR DIAGNOSIS AND TREATMENT. By WILHELM FALTA, Vienna. Translated and edited by MILTON K. MEYER, M.D., Neurologist to the Northern Liberties Hospital; and the Lucien Moss Home, Jewish Hospital. With a foreword by SIR ARCHIBALD E. GARROD, K.C.M.G., M.D. (Oxon.), F.R.C.P. (London), F.R.S. Third Edition, with Supplementary Notes by the Editor. (The previous editions bore the title of THE DUCTLESS GLANDULAR DISEASES.) 104 illustrations in the text. P. Blakiston's Son & Co., Philadelphia, 1923. Price, \$8.50.

This volume furnishes a comprehensive and up-to-date survey of the field of endocrinology. It is abundantly and beautifully illustrated. The references to the current literature are so numerous and so well chosen as to give one a view of the subject from all angles. This volume is concerned chiefly with the clinical aspects of the diseases of the ductless glands, but the results of experimental pathology are not slighted when they throw light upon clinical manifestations. The style is characterized by the usual pedagogic verbosity of the Teuton, which, however, can be forgiven when one acknowledges the real mass of information presented.

FREDERIC DAMRAU.

THE SURGICAL CLINICS OF NORTH AMERICA, April, 1923, Vol. III, Number 2, (New York Number). Published Bi-Monthly by W. B. Saunders Company, Phila. and London.

A number of New York surgeons present excellent clinics on a great variety of important surgical problems. Dr. Albee deals with ununited fractures of the lower jaw, and demonstrates his technique of insertion of bone grafts by excellent illustrations.

Dr. Bolling, Dr. Martin, Dr. Smith, and Dr. Weigel report a number of cases of bone injuries, and of bone disease, and indicate the proper treatment for the respective conditions. A number of X-ray pictures supplement this, to show the final results.

Dr. Heyd discusses very extensively the symptoms and diagnosis of gall-bladder disease. A number of microscopic sections of liver tissue show definitely the involvement of the liver cells in gall-bladder pathology. Dr. DeWitt Stetten cites a few mishaps during the removal of gall-bladder, and indicates the proper means of avoiding them.

Dr. Downes deals with hour-glass contractions of the stomach, and his method of treatment. Dr. McWilliams reports a case of true pancreatic cyst. Dr. Lewisohn describes a few experiences with inflammatory tumors of the omentum.

Dr. Edwin Beer gives a very interesting talk on tumors of the urinary bladder, dwelling particularly on the modern treatment of these conditions by high frequency current, radical surgical removal, or application of radium, according to indications.

Other contributors are: Dr. Stookey, on insidious paralysis of the intrinsic muscles of the hand; Dr. Nathan Green on esophageal hemorrhage, and Dr. Bancroft, on bilateral tumors of the ovary.

HERMAN SHANN.

THE SURGICAL CLINICS OF NORTH AMERICA, June, 1923, Vol. III, Number 3. (San Francisco Number). Published Bi-Monthly by W. B. Saunders Company, Phila. and London.

An unusually large number of San Francisco surgeons have generously contributed in the compilation of this number. Almost every field of surgery is covered, and even the specialties are well represented.

Dr. Rixford presents a case of ileocecal carcinoma, offering difficult problems of establishing the focal current. Dr. Lynch describes his technique in plastic work on the cervix; also methods of suspension of the uterus, and the proper peritonization of appendix wound after appendectomy.

Cervical rib is discussed very thoroughly by Dr. Brunn, who cites a number of cases, and illustrates the method of approach for its removal.

Excision of knee joint is dealt with by Dr. Cowan and Dr. Baldwin, separately, both articles being profusely illustrated. The surgical treatment of head injuries is admirably discussed by Dr. Naffziger.

Dr. Eloesser reports an odd case of aneurysm of the Common iliac artery, with a satisfactory outcome after operation.

Dr. Weeks relates an interesting experience with a case of Intracapsular hemorrhage of the liver, and one of obstruction of the small bowel by a biliary calculus.

Cases of Mesenteric cysts are reported by Dr. Bartlett, who also gives a brief description of the condition known as Mikulicz's disease.

The surgical treatment of burn scars is dealt with by Dr. Pierce. He goes very deeply into the pathology of this condition and treats them along surgical principles, by the various methods of skin-grafting.

A number of other authors contribute excellent material which merits favorable comment, but space does not permit of a detailed review.

HERMAN SHANN.

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DIABETES AS AN OBSTETRICAL AND GYNECOLOGICAL PROBLEM*

By F. GORHAM BRIGHAM, M.D.

BOSTON, MASS.

From the New England Deaconess Hospital and Massachusetts General Hospital Clinic of Boston, Mass.

DURING the past ten years, it has been my good fortune to have followed large numbers of diabetic cases at the New England Deaconess Hospital in Boston as well as in the Diabetic Clinic at the Massachusetts General Hospital and Boston Dispensary, and since last August to have followed a large series of cases treated with Insulin.

Just as in 1914, when the Allen low dietetic method, or the so-called Starvation Method, of treating diabetes opened up a new era for the treatment of this serious disease, so in 1922 and 1923 "Insulin," discovered by our doctor friends in Toronto, has given to the medical world a "specific" which enables us still better to handle the disease Diabetes Mellitus.

Insulin is a specific form of therapeutics, as it provides the body with the internal secretion which is lacking in this disease, but unlike other specific remedies, as thyroid, in myxedema, this powerful extract of the pancreas may prove a most dangerous therapeutic agent unless carefully controlled by the most accurate dietetic regime carried out to the nth degree in each individual case.

Without accurate diets, Insulin can do more harm than good, so that the careful work on diets which has been developed and put on a scientific basis since 1914 allows us to use this newest of specific remedies with safety.

The New Treatment with Insulin for diabetes displaces no feature of the treatment without Insulin. In fact, it demands the most precise knowledge of the diabetic diet, otherwise the remedy, like other remedies of any potency, is a menace to the patient.

That Insulin is a wonderful therapeutic agent has already been shown in hundreds of cases.

It is, however, not a cure; it merely allows the diabetic to eat more and live comfortably, as well as to work, and it allows the diabetic child to grow. One has but to see the thin, half-starved, emaciated diabetic, living on fifteen to

twenty calories per kilo body-weight, with a carbohydrate tolerance below ten grams, gaining weight and strength daily, to appreciate what a wonderful drug Insulin is and what it is going to mean eventually to the thousands afflicted with diabetes.

Insulin will also reduce the surgical mortality of Gynecological and Obstetrical diabetics.

When one realizes that as small a dose as a few units of Insulin can throw a patient into convulsions and cause death unless properly studied from a laboratory point of view, and properly prepared from a dietetic point of view, you can see how necessary it has been to control the distribution of this powerful extract.

To the Internist Insulin has removed practically the dreaded coma, and likewise it has enabled the Internist to help the surgeon and the gynecologist and the obstetrician to carry these diabetics with surgical and obstetrical conditions through their operations or deliveries with comparatively little likelihood of this dangerous and fatal complication developing.

Without the medical man, trained in the handling of the dietary treatment of diabetes and familiar with the use of Insulin, however, good surgical, obstetrical and gynecological results in cases with diabetes will not be obtained. There are too many pitfalls into which the surgeon may be led by the diabetic case without his being cognizant of the fact at all, and a fatal coma may precipitate itself in a very brief space of time. Close co-operation, therefore, between the medical man and the specialist is most important.

What future possibilities Insulin offers one cannot predict, for the work done so far is but the beginning of a tremendous amount of practical and scientific study which is to be crystallized out in the next few years. As yet but comparatively few cases complicating obstetrics and gynecology have been treated with Insulin.

Insulin being a drug that has to be given hypodermatically, offers a stumbling block to its universal use on account of just this fact, but all are hoping that soon a satisfactory and safe preparation which can be given by mouth will be available. To date none such is available.

That Insulin is not essential for the proper handling of all diabetic cases has already been proven, but in selected cases, especially in the

* Read at the Annual Meeting of the Medical Society of the State of New York at New York City, May 22, 1923.

acute severe ones, and those having surgical or other complications, its value is unquestioned.

Its value in small dosage, especially in pregnancy, may prove a help to the milder cases, but as yet too few have had Insulin to draw any conclusion.

On account of its potency care must be exercised in selecting cases for its use, for all diabetics taking this drug today have to either give it to themselves hypodermatically or have some member of the family do so.

Again the cost of Insulin must be considered, although not very expensive at the start, four to five cents a unit, now two cents, when given in very large doses may amount to quite a financial burden, especially as it has to be taken indefinitely if once started.

The omitting of special expensive diabetic foods from the diets of these cases so treated, however, about offsets the expense factor, so that Insulin need not be considered a luxury, and is a necessity.

The obstetrical problem in diabetes is, primarily, one of making a diagnosis.

A great deal has been written upon this subject, mostly by German authorities. All report a much larger percentage of cases to show sugar than the writers in this country, and the rather startling statement that "every pregnant woman has a latent renal diabetes" is the assertion of at least two authorities.

In pregnant women there appears, apart from a few exceptions, after the ingestion of one hundred grams of glucose, an alimentary glycosuria.

This tendency is present even at the beginning of pregnancy, and in consequence of the frequent appearance of glycosuria even at this stage, it seems to be of use as a direct diagnostic sign. How then can one recognize diabetes in pregnant patients?

The one most important routine examination to accomplish this is a twenty-four-hour urine examination, never a single specimen.

The amount of sugar in the urine does not tell a great deal. When sugar is found then a Blood Sugar determination should be done preferably one-half and one hour after a test of carbohydrate meal. This meal may consist of 50 grams of glucose in lemon juice, or two slices of bread and coffee, or two shredded wheat biscuits and one-half glass of milk. Nothing else should be taken at the meal because fat and protein delay absorption and mask the reaction. The urine should be taken within a few minutes of the Blood Sugar.

If the Blood Sugar after this meal is 0.16 or more, the normal being 0.09 to 0.10, the patient should be suspected of having diabetes, and another Blood Sugar should be done fasting. If this fasting sugar is 0.12 or more, then the patient has, without doubt, diabetes.

If the Blood Sugar is 0.15 or less after the

meal, and there is no sugar in the urine, still suspect the patient of having mild diabetes, and the urine probably showed no sugar because the test meal contained less carbohydrate than when the sugar was found in the urine.

If the Blood Sugar is 0.15 or less and there is sugar in the urine the patient might have renal glycosuria.

The safest way to treat all such borderline cases is guardedly. Omit sugar and all foods containing sugar, that is, no "sweets." All cereals should be given up, also 20% vegetables as potato, rice, macaroni, and reduce the amount of bread by one-half.

The true diabetic cases must be treated as such, and it is in these that rigid diets and Insulin should be used. These cases should have their initial treatment in a hospital.

One thing is certain, and that is, all pregnant patients who have shown sugar in the urine at any time should have twenty-four-hour urines and Blood Sugar examination every month during their pregnancies, and during the seventh, eighth, and ninth months a twenty-four-hour urine should be done at least every two weeks, and better every week. Following delivery they should be kept under fairly close supervision, for often these apparently mild cases develop a true diabetes later, especially if allowed to get too heavy. Great care should be exercised also in the feeding of these patients during lactation to prevent this possible dangerous obesity.

In the probable renal glycosuria cases the question as to the advisability of underfeeding will come up, but this is easily answered by stating that the baby will always get plenty, no matter what the diet, and by being kept thin the mother will certainly be in better condition at term and possibly with less weight and a smaller baby an easier labor may result.

The critical time for the true diabetic who is pregnant is directly after delivery. It is well known that the diabetes is often milder as full term approaches, probably due to the help given by the baby's pancreas, and a comparatively mild condition may become severe as soon as delivery takes place.

It is in these cases that Insulin is probably going to be of great value, not only at the time of delivery, but also if the diabetes is quite advanced at the time of becoming pregnant it will be able to control the condition which in the past has rapidly progressed to a dangerous degree, often terminating fatally unless the pregnancy is interrupted. From the foregoing it is very evident that the pregnant woman showing sugar must be very carefully studied and watched.

The method of procedure as to delivery of a diabetic patient is most important.

If no operative interference is necessary then patients can be delivered as in the normal, Gas Oxygen analgesia being used to help the patient

through the often long-drawn-out pain period of the first and second stages of labor.

When operative procedure is necessary such patients should be treated as any diabetic surgical case, and the preparation before delivery, the anæsthesia to be employed, and the after-treatment should be carried out as will be outlined further in this paper.

Insulin, no doubt, will be of great help in all such cases, but to date practically no work has been done with it in the pregnant diabetic.

The problem of treating the diabetic who has a gynecological condition to be remedied, like all other diabetic cases, with Insulin available, offers many interesting fields for experimental and original investigation.

The gynecological problem is that of surgery, but in the large majority of cases, surgery without sepsis. Sepsis has always been the obstacle confronting the surgeon in most diabetics with complications. The emergency in gynecology may arise, however, as an acute hemorrhage, extra-uterine, ruptured uterus, bleeding from a corpus lutein or blood cyst of the ovary; an acute tube with spreading peritonitis, or a cyst with a twisted pedicle. These must be treated as any surgical emergency, irrespective of the diabetic complication. If the operator considers the case surgically fit, operate, and treat the diabetes afterwards. Do not delay emergency diabetic surgery by waiting to prepare the patient, or the patient will be lost. Chronic conditions, as vaginitis and endocervicitis, are worse when sugar is present, also if the Blood Sugar is high. Pruritis Vulva usually disappears when sugar is removed from the urine, but may persist after the removal if the Blood Sugar is high.

The large majority of gynecological cases, therefore, can be prepared for their operations so that diet, as in the past in most cases, will be sufficient and Insulin will but help to get these patients ready for surgery with more promptness than before, so shortening the initial treatment. If of the severe type Insulin will allow them to have sufficient food to get through their operation successfully without a serious acidosis developing.

If surgery is indicated, diabetes is no excuse for its non-performance.

Practically all types of surgical cases uncomplicated by sepsis have gone through operations with much less sugar reappearing in the urine and less acidosis developing since the introduction of Insulin.

More carbohydrate can be given as Insulin permits of its easier combustion, and this prevents less fat destruction with practically no acidosis.

The easiest and quickest surgical procedure is necessary in all cases, for the diabetic is always a poor surgical risk. Many are older people, as in the plastic and prolapse cases, as well as those suffering from cancer, and in the younger cases

the diabetes has so lowered the patients' vitality that they are more liable to infection and possible coma. Avoid all possible trauma, and asepsis rather than antisepsis should be employed. Convalescence also may be slow on account of the above conditions, so every effort should be made to take as little out of the patient as possible by the operation.

Contrary to the generally accepted belief, diabetic wounds do not heal slowly, and an excess of blood sugar is not deleterious unless an acidosis is present. Although coma is still a possibility, with proper initial preparation and with Insulin available, it can and should be avoided in all cases where sepsis or an emergency is not an additional complication.

In addition to the pre-operative treatment with diet and Insulin, the value of plenty of liquids before and right up to the time of operation and immediately following it, is most important.

The diabetic must not be allowed to be desiccated and liquids given by any of the usual methods, mouth, rectum, sub-pectoral, or intravenous, are as safe as in any other surgical case. By the use of sufficient liquid alone acidosis can often be prevented.

Following operation, the giving of food as soon as possible will help tremendously, and the simplest foods, mostly those rich in carbohydrate, are the best.

A moderate amount of protein food tends to let the wound heal faster, while too much fat at this time causes slower healing.

A very important factor in the successful handling of gynecological and obstetrical cases complicating diabetes is the form of anæsthesia employed. Various views and opinions have been offered as to the best form of anæsthesia. All can be used with comparative safety, but certainly some have decided advantages over others.

Consciousness and the freedom from nausea and vomiting, being so important to the giving of food or liquids to any patient, in diabetes it is all the more so, so that it is certain that the period of anæsthesia should be as short as possible no matter what anæsthetic is employed.

All agree that chloroform is harmful to the diabetic, as has been shown so far by experimental work. Possibly with Insulin and better preparation of patients its value may increase.

Ether is also considered deleterious to the diabetic, not only as shown by experimental work, but chiefly because nausea is so common following its administration, thus preventing the giving of food and liquids which are so essential for the successful post-operative handling of these cases.

Gas Oxygen and Gas are both excellent, but occasionally are ineffective, but permit of much less ether and often help when local anæsthesia is employed.

Spinal Anæsthesia is of great help, and can be used, but it is of greatest value in the phlegmatic type of case.

Local Anæsthesia Novocaine and Cocaine is very valuable in all surgical procedure complicated with diabetes, and is sufficient, frequently, if used alone, and often shortens the use of one of the other forms of anæsthesia.

From the foregoing it is fair to draw the following conclusions as to the problems Obstetrics and Gynecology offer in diabetes:

1. That by the discovery and use of Insulin the seriousness of diabetes, as an Obstetrical and Gynecological complication, is greatly lessened.

2. That the use of Insulin for this purpose in no way replaces any former dietetic treatment and, therefore, close co-operation between Surgeon and Internist is most essential.

3. That the careful study of all pregnant patients showing sugar in the urine is most important as well as supervision afterwards, especially in the prevention of obesity, and that pregnancy in the diabetic, with Insulin available, should no longer hold its former terror.

4. That in Gynecology, as well as in Obstetrics, careful pre-operative treatment of the diabetic condition by diet and possibly Insulin, should be carried out before surgery is undertaken, unless the rare acute complication arises which should be handled, as if diabetes were not present, by prompt surgical treatment.

EPIDEMIC ENCEPHALITIS—ITS TREATMENT WITH SODIUM NUCLEINATE, WITH A REPORT OF 21 CASES.*

JOSHUA H. LEINER, M.D.
NEW YORK CITY.

DURING the early period of the Pandemic of Epidemic Encephalitis, the treatment of this disease, aside from symptomatic therapy, was practically nil.

It was during its later period (second year) that, because of the failure of appearance of definite specific therapy, reports began to infiltrate, concerning non-specific therapy, as an attempt to combat this scourge.

Laube and Marinesco reported recovery following the intraspinal injection of Tetanus Antitoxin. Brill used also the injection of serum intraspinally. Grunwald injected the convalescent serum intraspinally. Döllkin and others used milk, subcutaneously or intramuscularly. Lately Rosenau's serum appeared whose therapeutic effect is undoubtedly due to the proteins in the horse serum as he himself

pointed out as a possibility, and because his findings in a great measure coincide with mine.

It would not be amiss at this time to state that there are two outstanding schools of non-specific therapy today. One represented by Döllkin and his co-workers, working with milk and the prodigeous vaccine, believe that specific proteins will give specific reactions in certain diseases. The other school, represented by Weichardt, claim that their large clinical experience and observation leads them to believe that by non-specific protein therapy we stimulate all the cells of the body to greater activity. This is the well-known Omnicellular or Plasma activation theory. As to their respective reasons and research findings, I will not attempt to enter into at this time.

Certain facts are definite, however, *i. e.*, that following the injection of non-specific substances, there is first an anaphylactic phase, the blood showing at first a leukopenia, followed by a reaction with increased metabolism, with its attendant rise in temperature, etc. The blood shows a hyperglycemia, leucocytosis, and during the height of reaction the antibodies increase, and the leucocytes are more actively phagocytic than normally. It has been noted that following the injection of Typhoid vaccine, the polynuclear leucocytes have been found to ingest erythrocytes.

In our administration of drugs that are "Specifics," as quinine in malarial fever, and salvarsan in lues, they are always accompanied by leucocytosis and marked phagocytosis. Very significant is the treatment of general pareses by Wagner-Jauregg of Vienna, who withdraws the blood of patients who have an active malaria, and injects it into these individuals. While abroad I used typhoid vaccine in cases of multiple sclerosis, with results that often seemed remarkable.

Harking back to the "specific" remedies, the question arises, are they entirely specific? Are the therapeutic properties due entirely to their specificity, or do they possess their activities because of the property of arousing the defense mechanisms of the body? It was noted abroad during the early use of salvarsan in lues that cases who received intramuscular injections in addition to their intravenous treatment, had their Wassermanns negative very much earlier.

The first time my attention was forcibly drawn to the question of the efficacy of non-specific therapy in the treatment of this disease, was in the two following cases.

E. S., boy, 8 years old, had what was in 1919 an influenza. One month later he manifested symptoms of reversal of sleep, character change, etc. He was then taken to the moun-

* Read at the Annual Meeting of the Medical Society of the State of New York, at New York City, May 22, 1923.

tains, where he spent a year without any benefit. In fact he became worse. On January 12, 1922, one and a half years later, he showed as a sequela of his encephalitis, paroxysmal attacks involving the respiratory mechanism. These attacks came on six months previous, and resembled those described by Parker of the Mayo clinic, and in part that by Haas and Aronson. They were characterized by rapid breathing five or six times, then holding the breath, as if he had a spasm of his throat, at the same time protruding his abdomen. His face then became congested and cyanotic, eyes bulging, together with a sardonic facial expression. He would often fall to the ground during the height of the attack. In addition he would have attacks where he would rush around the room, body tilted to the left, or suddenly stop and stare around the room. He showed pupillary inequality R L, slight ataxia and adiodokokinises in the left upper extremity, otherwise negative.

Three weeks later I was asked to see him by his family physician and found him to have high fever, a rigid neck and a bilateral Kernig. He was tapped with marked relief. He then developed a frank lobar pneumonia. On March 25, 1922, when I saw him again, he was perfectly normal as to his attacks. He had none since his pneumonia. He still showed the signs of central nervous system involvement. Later there were a few more scattered attacks. When last heard of they ceased entirely. This improvement was undoubtedly brought about by the arousal of his innate defense mechanism.

The second case, No. 35313, widow, 56 years old, admitted December 12, 1922, to Lebanon Hospital, on the neurological service of Dr. Wm. M. Leszynsky.

The history on admission was that she became lethargic seven weeks before. Was admitted to St. Marks Hospital, and slept there for three weeks. Was removed to her home only slightly improved. Her lethargy was followed by insomnia both day and night. When admitted to Lebanon Hospital she was again in a lethargic state, her extremities rigid, Cheyne-Stokes respiration, and with an intermittent pulse.

Neurological examinations showed that while asleep she was capable of answering questions, but fell asleep during examination. There was pupillary inequality R > L, ptoses of the left lid, slight flattening of the lower two-thirds of the face on the left side. Left radial and abdominals absent. An inconsistent Babinski and Shaeffer was present on the left lower extremity. A slight rigidity of the neck was present. Mental examination showed that she was completely disorientated, muttering incoherently at times. She was progressively getting worse, and a clinical note on December 27th reads—Patient lethargic

for past four days, and increasing in depth. Cannot be aroused. Neck more rigid, definite bilateral Babinski present. Bladder and rectal incontinence. As her blood pressure was dropping very rapidly, and her cardio-vascular system was showing alarming symptoms, we decided to give her spts. turpentine hypodermatically. She was given Min. V on January 11th, 1922. There was no rise in temperature to speak of, but there was an increase in leucocytes, but owing to the fact that two different men took it before and after, it cannot be judged reliable. The nurse's note three days after is that the patient is much improved. The injection was followed by an abscess which was incised ten days later. On January 21st a clinical note reads that the patient is fully awake, alert, and the general expression and demeanor shows that she is getting progressively better. Five days later she was out on a chair, and on the 9th of February was discharged as cured. The production of a fixed abscess, which is an old remedy, activated the antibodies in this woman.

Concerning the pathology of the disease, it is generally agreed that the pathologic process implicates primarily mesodermal structures. We have an infiltration of plasma cells and lymphocytes into the perivascular adventitial space of His, and into the Virchow-Robin spaces. A striking fact is the absence of leucocytes. As Ayer says, "It is interesting and important to note that, with rare exceptions, polymorphonuclear leucocytes are not present."

Then again the amount of infiltration into the surrounding tissues is not as pronounced, as, for instance, in poliomyelitis, even in reference to the amount of hemorrhage. Doctor Spiller states that "In no case were there found extensive hemorrhages such as have been seen in other forms of inflammation of the central nervous system." Although in the early part of the disease, the blood vessel walls are not much involved, it has been found that later they become thickened, thrombi form, calcareous plaques are seen as well as a proliferation of the neuroglia.

One definite fact seems to stand out in the early histopathology of the disease, and that is, that the type of toxin or its virulency is such that it does not arouse sufficiently the natural defense mechanisms of the body. One can probably dip into a wide field of theory or speculation, calling to his aid Wright's opsonines, Aberhalden's ferment hypothesis or Ehrlich's side chain with his antigen antibody explanation, but they are not all compelling or all encompassing in their structural make-up.

Bearing in mind the above facts in the pathology of the disease, where the host shows an inadequate defense against the invading microorganism or its toxin, and bearing in mind that we have no specific remedy as yet, the writer has

been treating cases of this disease on the bases of non-specific therapy. The protein used is sodium nucleinate, a modified nucleoprotein, and the type used by the writer is derived from yeast cells. It produces comparatively a mild anaphylaxis and at no time was there found an urticarial rash. Then again it can be definitely controlled as to strength, by grain dosage. This, therefore, gives a great advantage over serums, for instance, or over other protein remedies.

The physiological phenomena of sodium nucleinate on the blood, with its property of increasing leucocytes, phagocytoses, etc., is well known.

The writer is cognizant of the history of the nucleic acid group, dating back to its first appearance before the Basle Naturforschers Congress in 1874, its later use because of its properties by Harbczewski, and still later by Netter of France, in the treatment of parasyphilitic disease.

Clinically it is well recognized by those who have seen a large number of cases that the acute stage of the disease often merges into a long subacute period, and also a subacute-chronic type. For purposes of therapeutics I have divided the cases treated into acute-subacute and subacute-chronic types. This classification takes into consideration the slow insidious nature of this malady. Who has not seen patients who give a history of a mild attack of encephalitis one or two years previous, and whose present symptoms date back for only a short period, usually a symptom-complex of Parkinson's disease? Evidently a slow degenerative process was going on during all these months or years, without outward symptoms, or very slight manifestations. Globus and Strauss have called attention to some of the subacute types, together with their histopathology.

I have to date treated 21 cases. There are 17 acute-subacute cases and 4 subacute-chronic types. (See table.)

ACUTE-SUBACUTE CASES

Three of the earliest cases treated by this method of therapy, are Nos. 1, 2 and 3. Case No. 3 is an out-of-town patient, who could not be followed out satisfactorily, but when last seen three months after her severe illness, was given two more injections because of slight abdominal myoclonic symptoms, which ceased entirely.

Case No. 1, male, No. 36588, United States mail carrier, 38 years old, born United States, admitted to the neurological service of Lebanon Hospital April 14th, 1922, and discharged June 2nd, 1922.

History. One week before admission began to have pains in the left arm, radiating into his chest. It was fairly constant, and sharp in character. Four days later became drowsy. On admission to the hospital patient was lethargic.

Examination April 15th showed him to be stuporous, but could be aroused. There was marked tremor of both eyelids and all the facial muscles, particularly around his mouth. There was a wax-like rigidity of his neck, both lower extremities, and to a lesser degree in both upper extremities. Eyes: There was difficulty in attempting to open them. Pupils were dilated (atropin). Ocular motility: With the exception of a slight outward rotation of the right eye, there was present a complete external ophthalmoplegia of both eyes. Corneal response, present. Face: On retracting his lips to show his teeth, a marked rhythmic tremor was noted, together with a left facial paresis. At rest face was masked. Tongue protruded mesially, but showed marked coarse tremors. Upper extremities: Gross motor power and superficial sensibility normal. Deep reflexes elicited with difficulty. Abdominals all present. Cremasters not elicited. Rigidity present, in both lower extremities. K. J. present. A. J. not obtainable, probably because of the marked muscular rigidity that was present. No abnormal plantar response

ACUTE-SUBACUTE TYPES

Case	Age & Sex	Date Entered Date Discharged	Classification	No. Injections	Time—Result—Residuals
1. F. G.	M. 38	Apr. 14/22, June 2/22	Parkinson—Ophthalmoplegic	6	One year cured*
2. M. B.	M. 32	Feb. 3/22, May 13/22	Parkinson—Myoclonic	4	1 year passed, apparently all cured
3. M. R.	36	May /22, Dec. 6/22	Parkinson—Myoclonic	3	Very slight masked face
4. R. K.	12	Feb. 3/23, U. T.	Lethargic-Ophthalmopl.	9	Clinically cured
5. E. W.	M. 43	Jan. 25/23, U. T.	Leth.-Park.-Myoclon.	10	Masked face, slight tremor lips
6. E. H.	F. 19	Feb. 8/23, U. T.	Psych.-Neuritic-Radic.	6	Apparently all better
7. M. D.	M. 8	Feb. 26/23, Apr. 16/23	Cort.-Spinal-Thal. Ophthal.	4	Completely well
8. M. W.	M. 48	Feb. 15/22, U. T.	Park.—Cranial Nerve	4	Well
9. F. S.	F.	Mar. 10/23, U. T.	Parkin.	4	Slight masked face
10. R. T.	F.	Jan. 21/23, U. T. 19Y	Facial Tic-Diplopia	5	Facial Tic
11. L. S.	M. 36	Jan. 29/23	Parkin.	6	Completely better
12. S. K.	F. 14	Jan. 1/23	Parkin.	6	Slight masked face
13. S. D.	M. 42	Jan. 27/23	Cortico-Spinal-Asthenic	6	Still weak slight
14. F. S.	F. 21	Mar. 27/23, U. T.	Lethargic-Radicular	3	Radiculitis D3
15. L. C.	F. 39	Feb. 1/23, U. T.	Somnolent-Radiculitis	4	Completely well
16. T. M.			Parkinson—Cranial Nerve		Recovered completely
17. S. F.			Lethargic—Parkinson	3	Died of pneumonia

SUBACUTE-CHRONIC TYPES

1. M. F., M., 2 years after Tremor of face and Platysma, and drowsiness gone. Tremor of left hand and emotional.
2. C. E., M., 39, 3 years after, Parkinson, 6, Tremor, rigidity and assoc. movements improved slightly.
3. J. S., M., 33, 9 months after, Parkinson, 6; no improvement.
4. E. J. F., 9, 2 years after, Parkinson, 5; no improvement.

* Cured: One can hardly speak of a case as cured one year later. Mean that clinical symptoms have cleared up and patient is apparently cured.

elicited. Disks, normal. Mentally, showed a partial disorientation, *i. e.*, to time and person only. Clinical note—April 21st: Neurological status same, except that his rigidity, particularly of his extremities, was more marked.

April 22, 1922. First injection of sodium nucleinate min. VIII, *i. e.*, a little more than a grain and a half. Blood exam. before injection, total white 5,000, differential 77 per cent polys and 22 per cent lymphocytes. His temperature rose from normal to 102½°F. Six hours after injection, blood showed total white of 16,000, with a differential count of 80 per cent polys and 20 per cent lymphocytes. April 29th—Showed ptosis of right upper lid, but ocular movements show some return in this eye, in upward, downward and inward planes. The left eye shows no change. Tongue deviates slightly to the right. May 3rd—Face still somewhat masked; ptosis diminished; ocular motility improving. He was given six injections in all, and he gradually improved. His lethargy diminished, temperature came down, the marked rigidity of all his extremities waned, his associated arm movements in walking returned, and he was discharged on June 2nd, 1922. He shows at present no residuals, *i. e.*, more than one year later.

Case No. 2. No. 36354, male, operator, admitted to Lebanon Hospital on April 12th, 1922, on the private service of Dr. Leszynsky. History: Became sick gradually, ten days preceding admission. Exam. April 13th, 1922. Eyes: Pupils unequal R>L. No extra ocular disturbance. Facies distinctly masked, with a slight droop on the right side. Deep reflexes of the upper extremity were diminished. Abdominal reflexes not elicited. Myoclonic abdominal movements present, more on right side and more intense. K. J. and A. J. present. No Babinski present, nor rigidity of neck or Kernig. Mentally he showed a Korsokow syndrome, filling in his memory defects with fabrications. Blood, spinal fluid Wassermann negative.

This patient went along and was getting worse. He was very restless, tossing around in bed, and showed an occupation delirium. His condition looked hopeless.

At the suggestion of Dr. Leszynsky (who with a feeling that it can no longer do the patient any harm), asked me to use this protein. I gave him a grain of Sodium Nucleinate on April 29, 1922. At this time I was not fully familiar with its administration in Epidemic Encephalitis, although I gave him what I thought was the minimum dose, he nevertheless showed a marked reaction. He had a chill six hours later, his temperature rose from 101 to 104°F. in four hours. He showed a differential count of polys, from 66% to 78%. Three days later his temperature came down below 100, for the first time during his illness. He was discharged two weeks later, with no apparent residuals. His family phy-

sician notified me that he still showed an occasional abdominal myoclonia spasm. He then administered two more injections, whereupon they ceased entirely.

ANALYSES OF CASES AND COMMENT

ACUTE-SUBACUTE CASES—Three cases that were severely ill have shown no recrudescence during the past year. This does not mean, however, that these individuals, in the light of what we know of the disease, are cured. One can, however, both objectively and subjectively, detect the insidious progress of the disease.

The remaining fourteen cases belong to this year's epidemic. Thirteen have recovered and one died of pneumonia.

Lethargy: Within 48 to 72 hours after the injection, cases showing lethargy begin to show improvement. All symptoms the first 24 hour. usually become aggravated. These cases often pass into a stage of irritability, but most of them gradually improve.

Myoclonia: This symptom often shows striking improvement. Case 14 had a myoclonia, involving the muscles of the shoulder girdle and neck on the left side. This stopped abruptly after the second injection. There is still, however, some residual of the accompanying radiculitis. Abdominal myoclonia seems to be more resistive to treatment.

Rigidity: There is a direct relationship between the amelioration of this symptom and the administration of this protein. This was particularly striking in cases 1 and 5. These cases had marked rigidity of the neck and both upper and lower extremities, reminding one of old standing cases of Paralysis Agitans. One noted the gradual diminution of the "cogwheel" phenomena of the upper extremities.

Temperature: The staffs of the hospital have been convinced that the temperature curve always comes to a level lower than that which existed preceding the injection. Usually following the administration, there is a rise that is variable. In some individuals there is no rise in temperature as a sign of reaction. If the temperature is above 102°F., when first seen, we begin with a small dose—a half grain, and note the anaphalactic reaction, etc.

Thalamic-Radicular-Neuritic Symptoms: The pain engendered by involvement of either of the above systems, was one of the most obstinate and persistent of symptoms to treat. This symptom was the last to yield to treatment very often, when most of the others disappeared. Two of the cases that were radicular, with definite belts of hyperalgesia, showed herpetic eruptions. Family physician gave case 15 eight injections with complete relief of her severe radicular pain (Morphine could not control). I still mapped out a belt of Hyperalgesia L4L5.

Korsakow Syndrome: Seven of the cases showed this symptom, either partial or complete. Some showed this combined with an occupation delirium. Whether the disorientation was partial or complete, it yielded readily to the exhibition of this remedy, and was often the first sign that the patient was improving.

Associated Arm Movement: This was noted in five of the cases. The improvement in gait paralleled that of rigidity, usually.

Masked Face: As both a residual symptom and a sequel of Epidemic Encephalitis, this is the most outstanding. Tremor is of equal importance. Although, when tremor has waned, together with the normal appearance of associated arm movements and the disappearance of rigidity, a masked face, coupled with staring and non-blinking expression, persists, seemingly, despite all treatment, to a greater or less degree.

Recrudescence: Patients who are apparently getting over their acute symptoms are found occasionally to suffer a relapse, so that treatment must be started anew, and it must be more persistent. Case 8 in point (M. Weinberg).

SUBACUTE-CHRONIC TYPES

Where a case has a fixed pathology, *i. e.*, chronic, treatment is, of course, worse than useless. While there are fulminating types of this disease, on the other hand we have all observed slowly progressive types that seemingly give no history of acute onset. This brings up the broad question of clinical symptoms here and the speculative pathology. Have we fully grasped the lesson of edema, and the rôle it plays in subacute nervous disease, with its attendant physiological block? Shall we withhold non-specific therapy from these subacute chronic types? In Multiple Sclerosis we see often advanced clinical symptoms, with comparatively little abnormal histopathology.

Cases 1 and 2 of the subacute-chronic form have shown benefit, particularly Case 1. This patient had his attack three years ago, and his residuals were coarse tremor of right face, lips and platysma, and jerking of right shoulder, left, facial palsy, and marked emotionality. He also had paresis of his left hand with tremor. Following five injections, he cleared up considerably. He still shows coarse tremors of digits of left hand, and a slight masked face.

Case 3, on the other hand, showed a marked Parkinsons disease, so that one could not distinguish it from an old standing case, although of only nine months' duration. This man showed no improvement, as his pathology was far advanced. We should, therefore, conclude from this that time as a factor in judging a case should not be the only consideration.

CONCLUSIONS

1. In view of the absence of a specific remedy in Epidemic Encephalitis, the writer urges treatment with non-specific proteins.

2. This should be used in the acute and subacute stages of the disease.

3. The use of Sodium Nucleinate is advocated by the writer, as he has found good results following its administration in nineteen out of twenty-one cases. Its use is harmless and its effect is often striking.

4. This substance is urged because of its physiological properties—increasing the polymorpho leucocytes, without a marked anaphylactic phase, and because this disease shows a lack of reaction on the part of the organism in view of the manifestation of the lymphocytic character of the perivascular infiltration.

5. The treatment of the subacute symptoms should be persisted in until they all disappear.

THE SURGICAL TREATMENT OF HYPERTHYROIDISM.*

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IN some clinics a distinction is made between the excessive activity of different types of thyroid glands (Plummer), the management of these cases varying accordingly; and in these clinics the diagnosis of hyperthyroidism is based upon the metabolic rate.

In our clinic, however, after an experience with thousands of metabolism observations, we have come to consider that the diagnosis of hyperthyroidism is best established by taking into consideration all the clinical evidence, together with the laboratory findings, and that the diagnosis of hyperthyroidism in itself is a sufficient indication for operation.

That is, whether the hyperthyroidism is associated with a simple hyperplasia, with an adenoma, or with a colloid goitre; whether it is the only pathological condition present or is associated with tuberculosis, with diabetes, with hypertension, with pregnancy; whatever the age of the patient; whether or not the heart is in decompensation; whether or not the legs are swollen; whether or not there is fluid in the abdomen or in the chest; whether or not the patient is emaciated; whether the condition is chronic or acute; whether or not there is exophthalmos—under any condition but one the patient is submitted to operation. The one contraindication is delirium.

With every case of hyperthyroidism considered as a surgical case, upon what criteria do we base the diagnosis of hyperthyroidism?

* Read at the Annual Meeting of the Medical Society of the State of New York, at New York City, May 23, 1923.

In our experience the basal metabolism rate, while valuable, is not specific: it indicates but does not identify; it is not a guide to operability. The basal metabolism gives information regarding the rate of energy transformation but does not give information regarding the capacity of the patient to bear that rate. The basal metabolism of a normal individual may be enormously increased temporarily by physical exertion or emotional stress, and the temporarily increased energy transformation can be borne with safety. On the other hand, in a person who has long been subjected to the stimulation of a hyperactive thyroid gland, even though at the moment the basal metabolism is measured it may be but little above the normal range, the individual cannot endure even the slight demands for increased energy transformation—metabolism—which are caused by slight overwork, the more personal frictions of everyday life, slight infections from tonsils or sinuses or teeth; slight autointoxication from incomplete elimination, etc.

In making a diagnosis of hyperthyroidism, we believe that the order of importance of the diagnostic measures at our command is as follows:—(1) the history; (2) the physical examination; (3) consultation with an experienced internist to rule out or establish the presence of diseases resembling hyperthyroidism; (4) the determination of the basal metabolism; (5) in certain cases the Goetsch test; (6) X-ray examination.

In certain cases, however, even after all these measures have been employed it is difficult to establish the differential diagnosis. It is particularly difficult in many instances to differentiate between early tuberculosis and hyperthyroidism. In some cases these two diseases develop together. In such cases an X-ray examination of the chest is of especial value.

As has been stated above, once the diagnosis of hyperthyroidism has been made, the one imperative need is the diminution of the excessive thyroid secretion. In a mild case this may safely be accomplished abruptly by an immediate partial thyroidectomy. In an advanced case the gland may be, as it were, cajoled into a comparative quiescence by a scheme of environmental management designed to bring the patient as close to a state of negativity as is humanly possible before the operation is performed; and by dividing the reduction of the gland itself by performing the operation in multiple stages. In an extreme case in which a marked degree of impairment of the internal respiration is indicated by emaciation, decompensation, and cycles of vomiting, every therapeutic measure at our command is called into action to restore the internal res-

piration. Water by hypodermoclysis supplies fluid by the shortest route to the dehydrated cells; blood transfusion supplies oxygen until the myocardium can be sufficiently strengthened by digitalization to maintain an adequate circulation; the state of negativity is further promoted by sedatives.

Not only is the operation performed in multiple stages, but each stage may again be divided by interrupting the operation at any point according to the indication of the moment, the wound being packed with flavin gauze until the negativity is restored and the continuation of the procedure is safe.

It should be noted that although it would perhaps appear that the gradations in the plan of management described above are to be applied in the presence of certain clearly defined phases of the disease, the *possibilities*, not the probabilities, guide the management in these cases. In every patient with hyperthyroidism the acute crisis may develop at any moment. In any case it may be impossible to foresee what stimulus may prove to be the spark which will produce what may prove to be a fatal explosion.

In every case, therefore, a state of negativity is approached; in every case hydration of the cells is promoted; in every case interference with internal respiration by the inhalation anæsthetic is reduced to a minimum by not allowing the patient to pass beyond the stage of analgesia, secured by nitrous oxid-oxygen—not ether. In every case the ligation, at least, is performed in the patient's room to avoid the psychic and physical stimuli of removal from bed and transportation to the operating room. In every case we hold ourselves ready to stop the operation at any point. In short, in every case we are guided at every step by the indication of the moment.

The maintenance of a state of negativity continues after the operation throughout the stay of the patient in the hospital; it follows him to his home. The activities of normal life are assumed gradually. The operation may remove the cause of damage to the cells; it does not repair that damage. That repair demands a period of management, the protraction and severity of which should bear a direct relation to the protraction and severity of the preoperative hyperthyroidism.

This plan of surgical management of hyperthyroidism may be briefly summarized as follows:

I. Preoperative Management.

1. Promotion of state of negativity by every personal and environmental means in our control.
2. Water by mouth and by hypodermo-

clysis, 3,000-4,000 cc each twenty-four hours by Bartlett's method.

3. Blood transfusion when indicated by evidences of greatly impaired internal respiration.

4. If the myocardium is weakened or compensation is failing, digitalis—2 cc every four hours for ten doses, or until nausea appears—to be repeated, if required.

II. Operative Management.

1. Ligation and usually thyroidectomy in the patient's room under nitrous oxid-oxygen analgesia and local anæsthesia.

2. Interrupted operation or delayed closure when indicated with the wound packed open with flavin gauze.

III. Postoperative Management.

1. Water, transfusion, and other protective measures as indicated.

2. Continuance of state of negativity.

3. Posthospital period of controlled hygienic regimen for at least six months.

The application of the fundamental principles (1) that the welfare of the patient with hyperthyroidism depends upon the maintenance of the internal respiration of the cells, (2) that the successful application of methods of protection and of restoration demands that they be applied in advance of the emergency, which means, (3) that each case must be strictly individualized, has made it possible to extend the operability of hyperthyroidism to include any patient who is not delirious or actually in the stage of dissolution.

Statistics.

Personally, I have performed 5,881 operations upon the thyroid gland; of these, 4,612 were thyroidectomies, among which 2,282 were hyperthyroidism. Since the initiation of our present plan of management, my personal series includes 2,860 thyroidectomies, including 1,346 for hyperthyroidism, with a mortality rate of 1.2 per cent. One thousand two hundred and sixty-nine ligations have been performed with a mortality rate of 0.6 per cent. A total series of 1,030 thyroidectomies, every one of which was a bad risk, have been performed in the patients' rooms; among these, 550 have been done since January 1, 1922, with a mortality of 1.1 per cent. In a series still in progress we have performed 492 consecutive thyroidectomies and ligations—312 thyroidectomies and 180 ligations—without a death. It should be added that in these latter series no case has been rejected because of its severity. In other words, we have come to think of the surgical treatment of hyperthyroidism in somewhat the same way in which we think of the surgical treatment of appendicitis, both as to its safety and as to its benefit to the patient.

BASAL METABOLISM IN THE DIAGNOSIS AND TREATMENT OF THYROID DISEASE.*

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THE first question which is presented in any case of disease of the thyroid, or in any case whose symptoms might cause suspicion of Grave's disease, is one primarily of diagnosis. If there be struma, is there also thyrotoxicosis; if there be tachycardia or tremor, is this a symptom of thyrotoxicosis? This primary question of diagnosis is often a difficult one. In well-developed cases of exophthalmic goitre there is, of course, small chance of error, but cases that do not present one or more of the classical signs are not infrequent and these cases are overlooked. Severe cases of Grave's syndrome have come to my attention during the last year where there was neither struma, exophthalmus nor tachycardia. But even more common than these atypical cases are instances of various nervous disorders which for one reason or another are mistakenly diagnosed as Grave's disease, or hyperthyroidism. We have constantly to bear in mind that several of the important symptoms and signs on which we commonly rely for the detection of thyroid syndromes are not characteristic of thyroid disease especially, but are rather only evidences of an unstable and irritable vaso-motor system, and occasionally of organic nervous disease. An example of the latter was a case that had been operated upon and much of the thyroid removed without relief of tremor or of subjective symptoms. It was a case of multiple sclerosis.

Tachycardia and tremor are signs usually found in several types of neurosis; so not infrequently is loss in weight and the subjective symptoms of dyspnea on exertion, easy fatigue and many others. If these cases of neurosis, psychæsthenia, and various constitutional types happen by chance to have also some enlargement of the thyroid—not infrequent if they reside in a "goitre belt"—then the diagnosis is difficult and mistakes are often made. When diagnosis depends solely on judgment and opinion, whatsoever the type of disease, the percentage of errors is always high. The search for characteristic reactions and specific tests is an expression of this feeling of uncertainty and is an attempt to free diagnosis from doubtful and shifting opinion.

Up to the present time the only reliable index of the degree of thyroid function is ascertained by means of the basal metabolism. Almost the only fact concerning which there is today no dissent is that the growth and activity of the body cells is under the control of the thyroid gland. The vital processes in cell or organ are measured by the amount of oxygen consumed.

* Read at the Annual Meeting of the Medical Society of the State of New York, at New York City, May 23, 1923.

An increase in these processes invariably means an increased expenditure of energy which in turn necessitates more oxygen. There is no difference between body cells and chemical processes generally. The law of conservation of energy holds. An estimation of basal metabolism is essentially an estimation of oxygen consumption at a time selected when this oxidation is uninfluenced by adventitious factors. Excluding a few easily recognized morbid states, such as leukæmia, there are no diseases which influence the basal metabolism except those of the thyroid. And no disease influences it to the same degree. The evidence is constantly growing and in many respects is already complete. Athyrea, whether congenital cretinism, or operative myxoedema, is accompanied by a marked fall in metabolism. The feeding of thyroid substance or increased function of the gland, hyperthyrosis, produces an elevation of metabolism which, in some cases, is exceeded only by that of fever. The estimation, insofar as it is an estimation of body oxidation, is specific. The difficulties and dangers that come from using the method as a test for a disease process arise very largely from slovenly technical procedures and a failure to secure *basal* metabolism.*

In formulating a program for the treatment of a case of toxic goitre the first fact that demands attention is the degree of intoxication. This is particularly true when surgical measures are contemplated. If the degree of intoxication as measured by the basal metabolism, is above 60 per cent the hazard of operation is much increased and when the basal metabolism is over 80 per cent it would not be wise to attempt any operation. The appearance of the patient and the usual signs by which intoxication is measured are notoriously untrustworthy. In our experience at the New York Hospital clinic whenever we have determined to ignore metabolism and depend on general impression we have almost invariably had cause to regret our rashness. There are many cases of toxic thyroid disease that could not survive an operation at a time when the metabolism is very high, but at a later period after rest and appropriate treatment has reduced the metabolism, do withstand surgery well. Some cases in this group require first rest, then ligation of the thyroid arteries and, after an interval of one to three months, resection of the gland. The ligation of the vessels often effects a fall of 10 to 20 per cent in the basal metabo-

lism during the ensuing months, but this lower level is seldom permanent. The gland undergoes hypertrophy and in a year the temporary benefit has vanished. There is a period, however, when the metabolism is reduced and surgery relatively safer. In any attempt to evaluate these various factors on which operative mortality so largely depends it is very important to have some method of precision, something which transcends mere opinion as a guide.

Two considerations in the main determine the immediate success or failure of surgical treatment of thyrotoxicosis: the degree of intoxication and the presence and severity of secondary cardiac disorders. No study of a case of Grave's disease has been complete unless it include a careful and searching examination of the heart, vascular system and the kidneys. Some degree of myocardial change is usually detectable, and in cases of long duration one often observes numerous premature systoles, or auricular fibrillation with or without pulse deficit. Disorders of this type cannot be ignored. In many cases their severity definitely prohibits immediate operation. But it is usually possible, by suitable care and meticulous attention to details in treatment, to bring about a degree of improvement in the patient's condition sufficient to permit of operation. No problem in medicine requires a closer co-operation between surgeon and internist than that presented by the severe case of Grave's disease.

In evaluation of the results of treatment of chronic disease the word "cure" is now seldom used. Standards have changed and are changing. As an example, one need cite only the reserve practiced by surgeons in pronouncing as cured cases of malignant disease. Formerly it was held that no recurrence after five years indicated safety for the patient—a standard to which few would subscribe today. Toxic goitre is subject to remissions and exacerbations and, like pernicious anæmia and chronic arthritis, it seems to be characterized by a wave-like progression. Then, too, a patient may be improved in so many respects that he seems both to himself and to us a cure. We may be misled, not alone by a patient's statements of his subjective symptoms, but also by signs, such, for example, as gain in weight, decreased heart rate, etc. As a result of many disappointments and mistakes in prognosis, I have been forced to give scant attention to these appearances in any attempt to estimate the value of some therapeutic method in cases of toxic goitre. It so often happens that in cases of Grave's disease a marked improvement in general health follows the removal of an infection. The patient seems well and one might be tempted to believe him cured, but an estimation of the basal metabolism shows that the thyroid element in the disease is unchanged. The real disease is

* It happens not infrequently that patients are sent to the New York Hospital for basal metabolism, having been told by their physician that they might take a glass of milk that morning. Or physicians wish estimations at other times of day. These conditions do not give *basal* results.

The greatest care is required with every type of instrument to avoid gas leaks, and frequent checks are necessary. With some of the instruments now foisted on the market precision seems out of the question. But giving due care to secure reliable results the estimation of the basal metabolism is the only method of securing accuracy of diagnosis in thyroid disease and it is the only method of estimating the degree of intoxication in cases of toxic goitre.

not cured and it is almost certain to become manifest at some future time if the environment is conducive. We see this same state of things in a number of diseases. Under these conditions we need some delicate means of detecting disease states which are temporarily obscured and in thyroid disease neither prognosis nor the results of treatment can be known without basal metabolism estimations.

The treatment of thyroid diseases presents definite problems which can be solved, in my opinion, only by recourse to basal metabolism estimations. These problems are, first, the diagnosis of atypical cases of Grave's disease and of various types of neuroses which may resemble thyrotoxicosis, second the selection of appropriate methods of treatment, since these are determined by the degree of intoxication as well as by secondary organic changes, third the estimation of the results of any form of treatment and the prognosis.

SOME EFFECTS OF THYROIDECTOMY IN THE SHEEP.*

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AS AN experimental animal the sheep has been little used, mainly, no doubt, on account of the difficulty of finding accommodation for it in the precincts of a laboratory, and our experience may be of some interest to the surgeon as well as to the physiologist.

My introduction to this animal took place in 1908 when, in association with Dr. Jessie L. King, an attempt was made to localize the cortical motor area and after ablation to trace the course of the pyramidal tract fibers therefrom. In our earlier experiments we used ether as the anæsthetic and found that within a few days following the operation the animals died, showing acute respiratory symptoms. At the post mortem examination the respiratory passages were found to be filled, almost to occlusion, with thick, sticky mucus which had evidently led to suffocation. In our next experiment we used chloroform, with atropine given subcutaneously, but death followed, apparently from the same cause, in forty-eight hours. During the administration of the anæsthetic, even from the very beginning, there was a continuous and profuse flow of saliva from the mouth, and it was always necessary to keep the head of the animal depressed in order to give it free flow and so prevent suffocation. Evidently, the respiratory passages of the sheep are extremely susceptible to the irritating action of ether and chloroform, particularly the former. We lost the first five or

six animals in succession from the same cause, and had almost abandoned the investigation when we were advised by Dr. Martin B. Tinker to try local anæsthesia. We took his advice and after that had no further trouble.

This susceptibility of the sheep to respiratory complications following ether or chloroform we have not seen reported, and it may be that our experience is unique, but then major operations, involving the use of a general anæsthetic, are rarely performed on the sheep by veterinary surgeons since the commercial value of the animal is not sufficient to pay the cost of the operation, and if the condition of the animal should necessitate such a proceeding, it is killed to free it from pain.

Another point which we observed that may be worthy of mention is that when under a general anæsthetic the sheep frequently shows Cheyne-Stokes breathing.

To offset this susceptibility of the respiratory system, the sheep has a high resistance to wound infection and healing invariably takes place by first intention. This may possibly be accounted for by the high normal temperature of the animal, which usually ranges from 102° F to 104° F. It also explains the fact that without any anti-septic precautions whatever, the farmer is able to perform such operations as castration and "tail-docking" with very little risk of wound infection.

We next used the sheep in an attempt to throw light on the theory of a vicarious relationship between the thyroid and pituitary put forward by Rogowitsch¹ in 1886. When the thyroid is removed the pituitary is believed to become enlarged and it is stated that an increased amount of colloid is formed in the gland. If this colloid material is similar to that of the thyroid and capable of taking its place in the bodily metabolism, and if the active principle of the thyroid is an iodine-containing body, then one might expect to find the presence of iodine in the hypertrophied pituitary in some quantity. To determine whether this was so, we selected the sheep, first on account of its size, since it is important to obtain as large a quantity of the pituitary substance as possible for analysis, and second because, being herbivorous, it would survive the removal of the thyroid sufficiently long to allow of the vicarious formation of colloid in the pituitary if such takes place. After a survival of about five months, no more iodine was found in the pituitary than is present in the normal animal.

We found that in the adult complete removal of the thyroid gland did not appear to have any deleterious effect on the sheep, at least, within the limits of our experiment—about five months. No signs comparable with those of myxœdema in man can be detected in that time.

*Read at the Annual Meeting of the Medical Society of the State of New York, at New York City, May 23, 1923.

¹Rogowitsch, Ziegler's Beitrage 3, path. Anat., Bd. Iv, S453.

Contrary to the generally accepted view, it was held by Vincent and others that the thyroid and parathyroid glands are not independent organs but are to be regarded as forming a single physiological apparatus, "the two kinds of tissue being intimately associated embryologically and working together physiologically. When the thyroid is removed, the parathyroids appear capable of functionally replacing it to a certain extent and their histological structure changes accordingly."

To find out whether this statement is true, so far as the sheep is concerned, when our animals were slaughtered, five months after thyroidectomy, the external parathyroids were removed in a few cases, fixed and sectioned. Microscopical examination failed to show any structural transformation of parathyroid into thyroid tissue.

Later, to test this point further, thyroidectomy was carried out on young lambs, when it was found that, unlike the adult sheep, a cretinoid condition soon supervened. The accompany-



ing figure shows two sheep of the same age and from the same flock. That to the left had the thyroid removed when about one month old; the other is a normal animal—the control. The parathyroids were removed from the cretins after death. All have not yet been sectioned, but so far as the examination has gone, there appears to be no evidence for the belief that the parathyroids are transformed into thyroid tissue. Vincent himself has since abandoned this view. Having demonstrated the fact that the cretinoid condition can readily be produced artificially in the sheep, we determined to study this more exhaustively.

To obtain the best type of control our practice is to remove the thyroid from one of a pair of twin lambs, both females by preference, at the age of three or four weeks, allowing the other to remain normal. Both are kept with the mother under exactly the same conditions as to pasturage and barn accommodation, records of body weight, temperature and pulse rate being made periodically.

As in the human subject, the cretinoid sheep

are very susceptible to infectious diseases, particularly those involving the respiratory system, and must be carefully watched. For example, a drenching from a summer shower, which would have no effect on a normal sheep, in one of these animals might be followed by a cold which would rapidly develop into pneumonia and result in death.

Growth is much retarded; in some cases when the adult stage is reached the control is more than double the weight of the cretin.

The body temperature is subnormal and more liable to variation than in the control, indicating a defective heat-regulating mechanism.

The pulse rate is very difficult to determine with any degree of accuracy in the sheep, as the animal is exceedingly timid and the nervous excitement connected with its handling will, in all probability, lead to a heart rate considerably above the normal.

As in the human subject, symptoms referable to the nervous system are amongst the earliest evidences of thyroid defect in the sheep. The animal presents a dull and stupid appearance, is unresponsive and indifferent to its environment and seems disinclined to make any effort. This aspect of the condition is being studied by Dr. H. S. Liddell and will be reported by him later. The intelligence of the cretin is tested by its ability to learn a simple maze and is compared with that of the control as obtained by the same method. He is also investigating the muscular activity of the twins by pedometer readings and other methods.

Another striking effect is seen on the integument. The fleece usually becomes ragged and tends to fall out and horn growth is greatly affected.

In all the cretinoid animals that have survived the operation a sufficient time (they rarely live longer than two years), pronounced cardio-vascular changes are evident. These are being studied by Dr. Goldberg, of the Department of Pathology, New York State Veterinary College, and will be reported later. At the age of two years, in the cretinoid sheep, the vascular degeneration is very extensive.

On two occasions a ram accidentally obtained access to the flock and several of the cretins became pregnant, but in every case the foetus died in utero, at different periods of gestation, or the lamb, if born alive, did not survive its birth more than a few hours. In a good many cases, probably on account of the atonic condition of the uterus, parturition was greatly prolonged and the lamb had to be removed by artificial means. In these cases this was accomplished by members of the Veterinary Clinic, but in spite of the skilled assistance rendered the lambs were always dead

when born. In the human subject, it is stated that a cretin rarely conceives.

Blood determinations are being made by Dr. Bodansky, and some of the results have already been communicated to the Society for Experimental Biology and Medicine. With one interesting exception, the sugar content of the blood has always been below the normal for the sheep.

As one would naturally expect, the skeletal changes are quite pronounced.

At death, the remaining endocrine organs, along with other tissues, have been removed and prepared for microscopical examination, but, up to the present, this side of the investigation has not proceeded far.

The effect of the administration of thyroxin, thyroid extract and iodine, respectively, on the hypothyroid state is being investigated and some interesting preliminary results have been obtained.

Finally, it may be said that in the lamb the effects of the removal of the thyroid gland at any early age very closely resemble those associated with the hypothyroid state in man, and as we can produce this condition in the sheep better probably than in any other animal available for laboratory examination, a good opportunity is offered for the experimental investigation of the functions of the thyroid gland.

FURTHER EXPERIENCES IN GLAND TRANSPLANTATION.*

By H. LYONS HUNT, M.D., L.R.C.S., Edin.
NEW YORK CITY.

SOIOLOGICALLY, man is a creature of habit and his environment; physiologically, he may be called the product of his glands of internal secretion.

Long before Brown-Seguard, and long before anything was even dreamed of endocrinology, the Chinese, Roman, and Arabian physicians, in fact, physicians of all times and climes, recommended the injections of the testicles from the various animals as a remedy for sexual impotence.

It was in 1849 that Berthold carried out the pioneer experiment of removing the testes of four roosters and transplanting them under the skin. It was Berthold's idea to test whether a gland with a definite external secretion, but which had powers over the whole body, could not be shown, by a clean-cut experiment, to possess an internal secretion.

Berthold succeeded. Without precise scientific knowledge he was the first to prove the existence and significance of what we now recognize as an internal secretion.

Forty years passed before the implication of Berthold's studies were rediscovered by Charles Edward Brown-Seguard (1817-1894).

Brown-Seguard is to be regarded as the principal founder of the doctrine of internal secretions. In 1869, he first expressed the idea that all glands, whether with or without ducts, supplied to the blood a substance, the deficiency of which produced pathologic disturbances.

In 1889, Brown-Seguard, at the age of seventy-two, announced the rejuvenating effects of self-experimentation with the injection of the testicular extract from lambs. According to his startling reports, he experienced a marked improvement in mental activity, physical strength, bowel action and increased appetite. The effects were reported to the Society of Biology of Paris, on June 1st, 1889. The testicular juices from lambs, dogs, and other lower animals, hypodermically injected into men, Brown-Seguard stated, had "a definite dynamogenic action upon the patient, stimulating his general health, muscular power and mental activity."

The Brown-Seguard experiment is to be recognized as the pioneer work in organotherapy. His principle was correct, but, as Paul Kammerer notes, he was on the wrong track, insofar as the effects of the injections cannot be lasting, and signify strictly no fundamental renovation of the organism, but, at most, an improvement.

G. Frank Lydston, of Chicago (Op. C. T.), was the first to perform gland transplantation on human beings. The medical profession took notice of Lydston's work only when the newspapers of the whole world began to give sensational reports, and they joined in the more or less witty jokes about the matter.

Victor G. Vecki declares that, notwithstanding dogmatic contradictions and ridicule, the effects of properly and successfully performed transplantations are unmistakable.

Stanley had the ingenious idea of a simplification of transplantation and devised a method of injecting the ram's semi-solid testicular substance subcutaneously with an appropriate syringe armed with a large calibre needle. This procedure is easily done and painless. Vecki has repeatedly seen good effects upon the sexual power, notably in a few cases, where suggestion could be absolutely excluded.

The opinions in regard to the Steinach operation differ. Some operators are enthusiastic, some doubtful and some treat it with contempt.

Steinach proceeds from the theory that the sex gland increases in activity when the vas deferens is ligated. With advancing age, the sex gland gradually loses its internal secretion, and its diminished function is restored by the ligation of the vas deferens. The senile sex gland may be stimulated by other methods, such as by chemical means and X-ray treatment, but in

* Read at the Meeting of the Medical Editors' Association, October 26, 1923.

Steinach's opinion, the surgical method is the easiest and most dependable.

Steinach's claims, though strongly endorsed by Benjamin, are flatly contradicted by such investigators as H. Stieve, Karl Sternberg, Prof. M. Zeissl, and many others.

B. Romeis, discussing the rejuvenation hypothesis of Steinach, says he compared the histological picture of the testicles before and after ligation of the vas deferens, but no increase in interstitial cells was found, and the sexual desire was not increased.

W. Hanbenreisser analyzes the results to date of transplantation, Roentgen irradiation of the testicles, and the two Steinach methods of ligating the vas deferens. Not the slightest influence from the irradiation could be detected, and only one of the patients showed improvement. This was after transplantation of the testicle tissue, which, in the author's opinion, is the only method which offers results.

While not agreeing with the therapeutic technic of Steinach, the application of which seems too much like whipping a tired horse, one must be prejudiced, indeed, to withhold the honors of genius which are rightfully his, for his demonstrative work in animal gland transplantation and sex transformation.

In reviewing both the present literature, as well as the history of gland transplantation, one is astounded to note how very indefinite and ill-defined has been the road of inquiry of those who have advocated this form of surgical therapeutics. Little effort seems to have been made to solve the problems which present themselves to determine—

1. The kind of person requiring a gland.
2. The kind of gland to transplant.
3. The endocrine deficiency of the patient.
4. The amount of gland tissue necessary.
5. The duration of life of the transplanted gland.
6. Grouping of the donor animal and the receiving human subject.
7. The cause of gland anaphylaxis.
8. The cause of gland non-take.

Relative to the kind of person requiring gland transplant we have:—

The patient suffering from nervous, muscular, or general debility, the eunuchoid, the pervert, women possessing infantile generative organs, cases of ovarian dysmenorrhea, those individuals senile or prematurely senile, cases of high blood pressure, functional impotence of the male, and frigidity and certain varieties of sterility in the female are pre-eminently cases for surgical gland therapeutics.

Recently I had a letter from a resident

physician in Aix-Les-Bains, requesting knowledge of my transplantation technic, because in his experience in administering gland extracts to rheumatics, he had concluded that benefit would be derived in a greater degree by gland transplantation, and in this connection, I may say that not only rheumatism but neuritis yields to this operative procedure in 80 per cent of cases.

In regard to the kind of gland to transplant, my experience has been chiefly with the sheep's ovaries and ram's testicles. I have also used the cow's pregnant ovary and the young bull's testicle. I have, however, found the ram and sheep the better.

In certain cases of non-take, I have felt that the same rules of blood grouping between man and man should apply between man and animal. Since the beginning of the preparation of this article, my chemist has reported that he has originated a method to blood-group the animal donor and the human recipient of the gland. If such is the case, I feel that we are on a firmer footing as far as gland-take prognosis goes.

Our experiments with guinea-pigs point to the possibility of at a future time judging accurately gland dosage. In a group of guinea-pigs we are transplanting testicular and ovarian gland tissue in graduating amounts, comparing the amounts of tissue transplanted to the weight of the animal. Dosage will be the relative amount that can be transplanted without any of the tissue undergoing necrosis.

Animal gland experimentation is in its infancy. We are noting the effects and endeavoring to transplant pancreatic glands in dogs, in which we produce diabetes with phloridzen. We are also transplanting pituitary tissue, suprarenal gland tissue, thymus and thyroid glandular tissue, as well as tissue of the sex glands.

Another question that cannot be answered definitely has reference to the duration of the effects of gland transplants. The first gland transplantation I performed was three years ago. Several months ago I wrote this patient, who had originally applied for operation for a total impotence of seven years' duration. I quote from his letter: "In regard to your inquiry, will state that I have no trouble to have an erection and normal sexual intercourse at any time I desire." We may conclude, therefore, that the effects of a gland can last at least three years. Whether the effect will continue longer I have no way of knowing.

Up to the present time I have performed eighty-four gland transplantations. Of this number only eight have failed to prove markedly successful. Two showed an anaphylactic reaction and six were non-takes.

I will not weary you with taking you over the histories and results of the eighty-four cases. I will, however, with a little more of your indulgence, read you excerpts of letters I have received from patients to demonstrate the results of gland transplants for the above various therapeutic indications.

Case No. 1—A woman of thirty-nine years of age, who from the age of fourteen menstruated irregularly with such pain that she was given chloroform, ether, and morphine at the menstrual periods. A gland was transplanted six months ago. I received the following letter three weeks after the transplantation: "Just a line to let you know that the menstruation came and went with no sign of pain. This appears more in the light of a miracle to one who has suffered the pains of child-birth each month for twenty-five years, etc., etc. . . ."

In regard to the effect of a gland in cases of actual senility, the following is from a lady in her seventy-first year:

"Almost every day since the first week after the operation, some new feature of rejuvenation of mind or body has presented itself as evidence that the gland transplantation was a success in my case. I truly feel that the stone has been rolled away from the grave of my youth and there has come forth a live and vigorous spirit which in activity and alertness is a pretty good counterfeit of myself before the 'passing out.' And, judging from the signs I have already noticed and from the comments of my friends, I am convinced that the evidence of the years is being contradicted at least in a measure by my general appearance as well as in my feeling of renewed vitality.

"It is difficult for me calmly to mention the different stages of improvement which I sense every day. I want to write a bookful of underscored, exclamatory ravings.

"Two days after the operation, I found myself walking along the street more energetically than usual. I soon found that I could go up stairs with less and less discomfort. From taking a car for half a dozen blocks I now walk a mile or two after being steadily on my feet for at least eleven hours, with less than half an hour's rest at noon. Instead of spending most of my forty-five-minute luncheon time in the recreation room at the department store where I work I go out for fresh air and to revel in my new life. The sheep may miss its gland but I'm sure that I am getting more benefit from it than the animal ever could.

"My memory is greatly improved. My deafness has entirely disappeared. My eyesight has also improved. I observe more keenly than I did. My eyes are not as dull as they used to be. My complexion is better and my digestion is perfect. My flesh is firmer and my circulation improved, etc., etc. . . ."

In sexual impotence I may state that transplantation is successful in ninety per cent of the cases. The following letter is one selected at random (as, in fact, all the letters I am reading have been), and is typical of the improvement noted:

"In reference to gland transplantation in my case, permit me to submit the following comment:

"At the age of forty-eight my health in general was good, with the exception of absolute sexual impotency which had lasted for about two years. During this time no erection had taken place at all.

I made every effort to overcome this condition by careful living, plenty of out-door exercise, cold bath every morning, etc., etc., but there was no sign of improvement. During the three or four years just preceding this condition I had suffered more or less from a lack of sexual vigor. I had become somewhat despondent and did not seem to take the proper interest in life or business.

"The gland transplantation took place about July 17th, 1923. About four days later I noticed an erection of the sexual organ upon awakening in the morning. Erections began to appear regularly for a while, then failed to appear for a short time. After this apparent reaction they again took place regularly and continue to do so at the present time. I am again able to enjoy a moderate amount of sexual intercourse, and while I have not the vigor of early manhood, I consider my condition at the present time very satisfactory for a man of my age.

"I may also add that I have experienced no ill effects at all."

I also quote from the diary of a New York clergyman. The diary was started after the operation at my request:

"Thursday, June 28.—Operation 4:30 P. M. Non-painful; returned home in a taxicab; took to bed and used icebag for two days.

"Saturday, June 30.—Natural erection of the person noticed in the morning at rising—the first in five years.

"Monday, July 2.—Awoke in the morning. Noticed a stronger erection than previously.

"Wednesday, July 4.—Morning erection with firmness and muscular strength. Penis thrilled with blood warmth and feeling of passion. A noticeable enlargement of the organ.

"Friday, July 6.—Privates flushed with blood life and feeling of passion. Appetite increasing, sleeping natural, rest pleasant, vital strength returning.

"Monday, July 9.—Improvement of vision. Passion asserting itself. Erection on thought of sex. Privates warm and flushed feeling of circulation. Moving about and performing of usual duties with vim, strength and volition.

"Saturday, July 14.—Wound healed. A general improvement physically and mentally. Condition of system, feelings and physical habits and actions of privates equal to fifteen years previous.

"I feel a general improvement in my whole system, and physical actions and responses of youthful periods and experiences have constantly manifested themselves. These were noticeable within five days after the operation and continue to be present. My vitality, nerve force and mental action are wonderfully increased, and I feel that many years have been returned to me."

The following is from a married lady, forty-six years of age; though married many years, she had never become pregnant, and was quite desirous of becoming a mother. I transplanted a gland on June 14th and she became pregnant August 14th.

"I. The Menstrual Flow. Appeared on the 17th. Lasted four days. Very heavy flow. It used to last two or three days with two days moderate flow and the third day scanty. Second menstruation also lasted four days—very heavy flow.

"II. For sexual intercourse the desire was decreasing in the last five years, and passion was slow to arouse. Always had difficulty in having an orgasm and it would take at least twenty minutes to attain one. Now passion is easily aroused and an orgasm is had in five minutes.

"III. I was always tired. I used to wake up in the morning tired and sleepy, with no vitality, and no strength. I had neuritis in my legs, and after walking a mile I would have pains in my legs so that I could not sleep. Now I wake up before the alarm rings, feel rested and light and enjoy the morning. The neuritis is all gone and I do not feel tired any more. Though I am intensely active, and on my feet all day I feel strong, healthy, and full of vitality. For fifteen years I have suffered from constipation. Since the operation my bowels move naturally every day.

"IV. My disposition has changed immensely the last four or five years. I saw myself gradually growing more dull, irritable, and critical every day. I seemed to have lost all vivacity and joy of living. Almost since the first day of the operation I wake up happy in the morning feeling friendly disposed to the world. I feel like singing and dancing and life seems a joy.

"V. As for looks, my eyes have lost their dull, faded look and are brighter. My face has lost its drawn look. My hands were getting old looking—dry and wrinkled—now they look soft and all wrinkles have disappeared, etc., etc. . . ."

That neuritis is improved as well as general debility, I quote from the first and last paragraphs of a letter too long to read through—patient aged fifty:

"My condition up to the time of operation was a serious one. I walked and felt like an old woman of eighty—no strength in the limbs, and it was all I could do to lift myself onto a street car. I was very weak and when once seated, it was all I could do to get up on my feet again.

"The second week following operation the condition of my kidneys began to show improvement, also appetite. First, weary feeling upon getting up in the morning all gone. I suffered intensely from neuritis night and day for weeks at a time, and often thought that I was going insane. That all passed away. All of a sudden I realized my body was getting straight and erect and my step was elastic as of old. Now I am myself again. I am forgetting what it is to be tired. It is now nearly three months and I am vigorous, strong, and intensely interested in living. . . ."

The following two letters are from men I am sure you all know well. One of these a medical man who holds a chair at the New York Post Graduate Medical School, the other a medical editor of this society:

"I. Pulse rate dropped from eighty-three to sixty-three.

"II. A very marked increase in my physical vigor. Before the transplantation I tired easily and recovered slowly from bodily fatigue. This has practically all disappeared. I apparently can do as much as I could thirty years ago, and even if I do get tired I rest for fifteen minutes and it puts me right again.

"III. A marked increase in my mental activities.

"My mind seems now more active than it was at thirty-five years. It has much more to work on now, as I have had much valuable experience in the past thirty years. I seem to be able to grasp and solve problems more readily than I could as a young man. It was the diminishing mental and physical vigor which impelled me to take the transplantation. I felt I was getting to be an old man. The feeling

has disappeared and I am always ready for mental or physical work.

"IV. Gradually increasing sexual power.

"While this was never entirely lost I felt that it was gradually diminishing. It is just as surely gradually increasing since the transplantation.

"V. I have been practically bald for many years. The hair is beginning to come in on the bald spot and of its natural color.

"VI. As a young man I used enjoy cold baths, but for a number of years I have not been able to take these as I did not get the proper reaction. I have gone back to cold baths and get a fine reaction. . . ."

The following is the letter from a medical editor:

"I am grateful for the beneficial results following your operation of gland transplantation. For many months prior to the operation, I was beginning to lose my usual vim and vitality. I did not have the energy to do my work and really did not care whether school kept or not. I was beginning to realize that a condition simulating physical and mental hebetude was slowly tightening its grasp upon me. Since the operation I am feeling more like I used to in the days gone by.

"My circulation has improved, my complexion is again ruddy, and I am feeling as physically fit again as I did ten years ago. . . ."

I have been particularly pleased to be able to bring to this society my results—not from the fact that it is one of America's greatest medical societies, and not from the fact that it is comprised of learned and polished minds, but because you who compose the membership of the association are individually and collectively responsible for the public health of the nation, for it is the boldness of your pen that guides the thought of the entire medical profession.

Gland transplantation has been ridiculed, held up to censure. It has been made the food for salacious jokes, of caustic facetiousness, and of ludicrous contempt.

Those advocating operative gland procedure have been outrageously calumniated and have been called short and ugly names—names intolerable and mean. These declamatory invectives and bitter amplifications have usually emanated from those in our profession as destitute of sincerity as improvident of knowledge.

But it is you who are all powerful whose just opinion I value and it is to you I have brought my proof and my contention for your just comment that if we are willing to accept as a truth that skin can be grafted and carry on its functions, that cartilage, bone, fat, nerve, and thyroid gland tissue can be transplanted and carry on their intended duties—common sense, deduction, logic, and reason force the conclusion that sex gland tissues can be grafted or transplanted and carry on its physiological action.

HONORABLE IDENTIFICATION

Connecticut licensure has finally come to grief. Another crooked lane has led to catastrophe. Let us hope that the illumination of pitiless publicity may be of nation-wide value and lead us again to desire and to hope for a national standard of medical licensure that cannot be overridden by petty local legislators.

Meanwhile the Medical Society of the State of New York would do well to stand firmly for a thorough house cleaning and for a strong medical practice act accompanied by competent State machinery for its enforcement.

We see no great embarrassment in submitting every physician in the State to immediate identification and reverification of his credentials, feeling that thereby many of the pretenders will be obliged to seek other fields.

We carry in our pockets several cards of identification from clubs and societies, including one from the American Medical Association sent to us when we paid our annual dues, and, personally, we have not the slightest objection to being "mugged," or finger printed or tagged in any way that would tell the world that we belong to the Medical Society of the State of New York, and are in good standing.

We advocate the issue of a pocket membership card by the State Society to each member when he pays his annual dues, and feel that many who are not now members may desire such an identification, and protection, and may thus be influenced to join our ranks.

We do not believe that any machinery can ever be erected that will successfully prevent practicing medicine in irregular ways. As long as memory serves us, the drug clerk has always indulged in counter prescribing. The barber, the bootblack, the housewife, the shopkeeper, and every man at our elbow, is a gratuitous therapist.

We do believe that it is possible to prevent Faddists and Cultists from calling themselves "Doctors" and "holding themselves out as being able"—"to prescribe for any human disease," unless they rise to educational standards that the State establishes as necessary to their qualification.

A competent standard must be maintained for the protection of the individual and aggregate health of our people, and border line fences erected by the various States seem silly, foolish and incompetent entanglements.

Let us be physicians of the United States of America, free to practice healing arts in every part of our country, licensed by one national body, and honorably identified, endorsed, and regulated by State Societies and by the great American Medical Association.

N. B. V. E.

LICENSED QUACKS

When physicians advocate and foster legislation calculated to restrict and possibly prevent the dangerous activities of medical fakirs of the various jazz cults, the average layman (to his shame be it recorded) openly asserts that they are working to secure for their own pockets the fees the fakirs collect.

With naive inconsistency the same layman, when ignorant quacks are exposed, quite as readily asserts that the regular physicians are at fault, since they can recognize and segregate the quacks more easily than anyone else, conveniently forgetting that but for his encouragement and patronage of the quacks they could not flourish.

The exposure of a considerable number of licensed quacks in Connecticut has, fortunately for itself, aroused the general public to appreciation of the fact that regular physicians, in their legislative activities, have demanded only necessary safeguards about the science which has to do with an efficient existence or a wrecked life, with happiness or suffering, with life or death.

The public should be impressed with the facts that medical practice is not a matter of knack, nor a matter of selection of a remedy from a table of diseases and symptoms, nor a matter of conjecture, nor simply an easy way of bluffing an income out of people's pockets.

Let the public be repeatedly informed that, stated very briefly, real fitness for medical practice is acquired only after preliminary education, years of attentive study of medical treatises and of clinical cases, teaching and guidance by the eminent, conference with the wise, development of psychological insight, familiarity with the use of instruments of precision for diagnosis, determination and treatment. There is no short cut, there is no royal road. And the straight and narrow path leads not to ease, not to affluence, not to eminence, but to self denial, to unremitting toil, and to a lifetime of service.

Since the ignorant or careless or hurried or anxious patient may be deceived, and can rarely protect himself against imposture, a sufficient law, enforced by the State authorities, should be so narrow and so exact in its demands that none but the educated and worthy can be invested with the tremendous powers of the physician or surgeon within the State.

How else can protection be given to the parent who runs to the nearest "Doctor" sign, when his baby chokes with croup at midnight? How else can there be a safeguard against a death from ether during a simple amputation of a finger by a quack, such as occurred in Connecticut recently?

Connecticut suffers primarily from having more than one Examining Board, through the deference to cults shown by uninformed or influenced legislators, and we are treated to the spectacle, in "the Nutmeg State," of the members of a Board accepting the mere word of knaves as to qualifications and terms of study!

Revocation of quacks' licenses is not enough. Discharge of Board members is not enough. A spectacular exposure of the sale of spurious medical diplomas and of certificates of high school and college preliminary credits is not enough. The truth is that no State is safe, and all citizens are in jeopardy, unless there be a statute on the books similar to that which forms part of our Medical Practice Act, and that the said statute be enforced; and unless there be a registration of physicians made and widely published every year by the State Examining Board, or by the State Board of Health.

Lest we forget, the matter of medical practice is thus set forth in our statute:

"A person practices medicine within the meaning of this article, except as hereinafter stated, who holds himself out as being able to diagnose, treat, operate or prescribe for any human disease, pain, injury, deformity or physical condition, and who shall either offer or undertake, by any means or method, to diagnose, treat, operate or prescribe for any human disease, pain, injury, deformity or physical condition."

In the State of New York many people are practising illegally, not licensed, and masquerading under the names of various jazz cults. This condition persists because of two reasons: first, the county medical societies are not equipped to carry on the prosecution of these lawbreakers—the burden of securing evidence being put on the shoulders of the county societies by the District Attorneys of the counties—and, secondly, because the people love to employ these irregulars, and when finally awakened to the fact that they have been duped, are ashamed to testify against the impostors and admit childish gullibility.

A. W. F.

MEMORY CULTURE

Among the many questions asked of the family doctor is a frequent inquiry as to why memory is not perfect, or is not as reliable as formerly.

Upon investigation, the physician learns that the patient has never, since school age, done anything systematic toward acquiring a useful, working memory, but has expected the powers of recollection to increase with years. The deplorable movie attitude of acquiring without effort is assumed toward events and facts and dates. Naturally, only the *rara avis* is successful in the employment of such a method; only the individual with keen perception, close concentration and deep receptiveness; while in the ordinary person is awakened only a superficial interest, and he registers only a shallow impression, and later reproduces practically nothing.

Many memory systems are advertised; and, to judge by the expensive advertisements carried, are financially successful. A considerable vogue was enjoyed, thirty years ago, by the bizarre "system" of Alphonse Loissette, which was founded on the principle of recollection by means of simi-

lars, opposites and associated ideas, and involves construction and memorizing of tables of words thus suggested. Many others have sprung up since then with varying financial success. The astounding statements in some of the advertisements lead one to believe that, forsooth, a trained memory can be acquired during the spare time of a few evenings!

Clever mnemonics are constructed occasionally, to assist in recalling proper names, and they are very serviceable.

We all know that muscular development, in fact even the retention of already acquired physical prowess, can be secured only through use and practice. Atrophy inevitably follows disuse and idleness; the muscles become soft, weak, thin.

A parallel condition occurs in the case of unexercised brain power; alertness, attention, concentration, mental grasp and memory all decrease through disuse. To increase, one must exercise systematically and continuously.

But perhaps the most damaging agency in preventing the growth of memory, and even in impairing an excellent recollective faculty, is the ordinary habit of desultory newspaper reading. The average reader skims along till he encounters something amusing or striking, reading less for information than for passing entertainment. Attention is only casual, and the mind rambles on carelessly, in a purposeless stroll through the many pages of the usual daily periodical.

A very few items can be recalled after such a mental exercise, and few more can be recognized upon suggestion by another. In fact, the reader practices forgetting. He peruses for the sake of repeatedly emptying his mind. Thus the reverse of acquisition is repeatedly and assiduously practiced, every day.

The result is, inevitably, a decaying, shrinking, atrophied memory. This baleful process can be avoided only by forcing oneself to attend closely, to concentrate, to grasp eagerly, while reading; to refuse to be diverted; resolutely to prevent mind-wandering and resist distraction, and to read a paragraph or article entirely or not at all.

The supreme test of a proper method of reading will be to lay the paper aside after perusing and briefly to describe and analyze, with pad and pencil, every article read, referring to certain articles to complete or correct, after finishing the task. If this method of mental gymnastics be used persistently, one will soon acquire the habit of concentration while reading, and reproduction will be more easy, and retention fairly certain, and the memory will improve progressively.

Another important aid consists in "committing to memory" poetry and prose from time to time. Reciting to oneself with care in intonation and expression should be practiced, and one will soon learn to read with more insight and discrimination, an exercise which helps much in the task of unbroken concentration and subsequent retention.

A. W. F.

DEPARTMENT OF LEGISLATION

By James N. Vander Veer, M.D.

NOTES FROM THE CHAIRMAN

THE new departure started in the October number of the NEW YORK STATE JOURNAL OF MEDICINE in the opening of its columns to real departments relating to legislation, and to the laws pertaining to the medical profession, is but a step forward in the plans of the Society for keeping the individual members posted up to the minute relative to medical affairs in all their phases.

As it is a new departure, your Committee on Legislation will welcome all communications, questions and the like, for it is the object of the Committee to place before each physician in as simple language as is possible, exactly what is being done and what is in prospect. In that way we hope to spread the gospel of medical knowledge more widely and to show the individual member of the profession how deeply in his interest bound up with the whole profession.

It many times happens that the doctor selected as the County Legislative Chairman is unfamiliar with the routine of legislation as conducted in Albany, hence a slight résumé of how things are done will, no doubt, be of interest to the profession at large since your Committee has only one thing in mind and that is to protect the public health to the highest degree, through the best co-related efforts of the individual doctors and by means of educating the public as to their rights through their legislators, and as to what is the consensus of opinion of the medical profession as a whole regarding topics of health interest.

Your legislators are elected by the people—in some instances one single question alone determines the election of a Senator or Assemblyman, and his campaign is made on the platform of this single question without reference to any other questions which may be brought up, and which might be of equal importance to the public good.

Your legislator comes to Albany, and as a new man is, to a very large degree, governed at first by the political thought of his constituents back home on any question which may be under discussion.

As the session progresses, he begins to make his friends within his legislative body, and, if an Assemblyman, he comes in contact sooner or later with his Senator, who may be of the same or opposite political faith.

Sometimes, however, this does not happen early in the session as witnessed in an incident in the last session of the legislature, when, very late in the session, an Assemblyman was appearing at a hearing before one of the Committees, and after pleading his cause in an eloquent manner, was questioned at great length by a gentleman who had been sitting quietly on the side lines.

He became somewhat angered at the number of questions which this gentleman proposed, and finally blurted out, "Well, who are you to ask so many questions?" Very calmly and quietly, the gentleman arose and walking over to the Assemblyman, extended his hand and said, "Why, Mr. So and So, I am Senator So and So, from your District," to which the new Assemblyman, not at all abashed, replied: "Well, Senator . . . I'm glad to know you, for I've been looking for you ever since the session started." The session had started about the 5th of January and this was late in March, and both gentlemen had been daily within the four walls of the Capitol, rushing back and forth on legislative matters, but the Assemblyman did not know the other, although they represented the same district.

The new legislator gradually accustoming himself to the proceedings of the legislative body, learns the method of introduction of a bill—not as he originally had written it out, and under the belief that he simply sends it up to the desk for reading, but that he first must write out his bill and then submit it to the Bill Drafting Department in order that the phraseology may be corrected and phrased in legal form as well as that the legal part may have been looked into, and hence unnecessary duplication eliminated.

The bill is returned to him written in proper form and with strict attention being given to previous legislation on the same subject, and many times the bill is found to have been altered to such a degree as to negate the real purpose contained in the original draft.

Following the return from the Bill Drafting Department, bills introduced take the following course:

IN SENATE

1. Introduction and Reference to Committee.
2. Referred to Committee of the Whole on report from Committee.
3. Ordered to Third Reading and referred to Committee on Revision.
4. Passed and transmitted to the Assembly for action by that house.
5. Transmitted to Governor or, if a city bill, to Mayor of city.

IN ASSEMBLY

1. Introduction and Reference to Committee.
2. Ordered to Second Reading on report from Committee.
3. Ordered to Third Reading and referred to Committee on Revision.
4. Passed and transmitted to Senate for action by that house.
5. Transmitted to Governor or, if a city bill, to Mayor of city.

"When a bill is introduced in the Senate or Assembly it is referred to the standing committee appointed to consider that particular subject of legislation. It is printed before it is considered by the committee. When a bill is reported by the committee, either favorably or for the consideration of the house, it is referred to the Committee of the

Whole in the Senate. After consideration by the Committee of the Whole it is advanced to a third reading, then examined as to language and form by the Revision Committee, after which it is engrossed and ready for final passage. The procedure is the same in the Assembly upon the introduction of a bill except that an order of business known as "Second Reading" has been substituted for the Committee of the Whole. A bill, passing the Senate or Assembly, goes to the other branch of the legislature, as the case may be, and takes the same course in that branch as though it originated there, unless it is substituted for an identical bill introduced and already on the calendar of that house.

A bill may be reported by a committee either favorably, adversely or for the consideration of the house. If reported favorably or for consideration it advances to the next order of business. If reported adversely the house to which it is reported must agree to the report, which kills the bill, or it may disagree with the report and order the bill to the next order of business. A committee may be ordered by the vote of the house, to report a bill. This is done by moving to discharge a committee from further consideration of the bill. A bill usually is amended in committee, in the Committee of the Whole of the Senate or on the order of Second Reading in the Assembly. It may be amended on order of final passage in Senate. A Senate bill may be amended in the Assembly, after it has passed the Senate, and vice versa. Such amendments must be concurred in by the house in which the bill originated, before the bill can be transmitted to the Governor, or to the Mayor, as the case may be. The Committee on Revision may amend a bill only as to its grammatical and legal form. A bill must be reprinted each time it is amended and it cannot be passed in final form, in either house, unless it has been upon the desks of the members for three legislative days, unless an emergency message from the Governor certifies to the necessity of immediate passage, as provided in the Constitution. Bills may be reported by a committee, with amendments for reprinting and recommittal for further consideration.

During the last ten days of the session the work of the Assembly committees is taken in charge by the Committee on Rules, which makes up the Calendars of the Assembly for the balance of the session. In the Senate the committees have charge of all bills up to the close of the session. The Committee on Rules has power to take a bill from a committee and place it immediately upon the order of final passage. It may also amend a bill in any particular.

Concurrent resolutions, proposing amendment to the Constitution, which must be submitted to popular vote, are sent to the Secretary of State and do not require any action on the part of the Governor.

A bill may be progressed without regard to the regular order in either house, by unanimous consent or by a suspension of the rules, up to the point of final passage.

During the session of the legislature the Governor has ten days in which to approve or veto a bill. If he does not take action within that time the bill becomes a law. If vetoed, the bill may be passed over his veto by a two-thirds vote of the legislature. All bills passed during the last ten days of the session are treated as thirty-day bills and the Governor has thirty calendar days, after the legislature adjourns, within which to act. All bills not signed by the Governor during that period are dead."

A bill affecting the interests of a city must be sent to the Mayor for approval by the city authorities. The bill must be returned within fifteen days.

If returned without approval it may be re-passed in the legislature by a majority vote of each house. Bills returned by the Mayor, without approval, after the adjournment of the legislature are dead.

Thus it will be seen that it is necessary for your Committee on Legislation to find a Senator or Assemblyman who is agreeable and in heartfelt sympathy with the legislation offered by your Committee on Legislation in behalf of the doctors of the State, and then having found such a man, to place in his hands the original drafts of the bill desired, of which three copies must be given.

Your Committee on Legislation, then in conference with the legislator, must carefully examine the phraseology and legal references of the bill when it comes from the Bill Drafting Department, to see that no jokers have been incorporated therein which would destroy the original purport of the bill.

Following the introduction of the bill and reference to a Committee by the presiding officer of the legislative body, your Committee on Legislation must follow the bill to the individual members of that Committee, and try to enlighten them as to the arguments in favor of the bill.

Ordinarily, the Chairman of such a legislative Committee has much to do with the question of whether the bill should be reported as introduced, or whether amendments made within the Committee itself shall be allowed to prevail. Hence you may see how necessary it is to keep in touch daily with the various Committees, on the part of your Committee on Legislation, to say nothing of being on good terms with the Chairman of such Committees in which our affirmative or negative legislation lies.

Many times the question arises in a Committee relative to the voting out and onto the floor of the legislative body, of a certain bill when there lies within the Committee's files other bills of the same nature but so written as to give other meanings to the legislation desired.

And sometimes the complexion of the Committee in its individual members is one of extremely difficult approach on the part of your Committee, as can well be understood when the Medical Society may be opposing a bill which has been introduced by one of the Committee members, and yet may be urging the passage of a bill which has been introduced by some other member of the house and referred to this same Committee.

It has never been the policy of the present Committee on Legislation to give way by trade or political pressure in its position on any bit of legislation.

The old adage that "half a loaf is better than no loaf at all" cannot be said to hold true in such questions, for that which is right surely cannot be half wrong, nor can the opposite proposition be maintained in our present complexity of laws.

Some of the members of the medical profes-

sion, and especially the County Legislative Chairmen, can now understand the reasons for the communications which they have received from time to time from the Legislative Bureau, relative to questions under discussion. For it is the position of the Bureau that no legislation should be introduced which is detrimental to the Public Health, and yet hardly does a bill appear, fostered by the medical profession or in the interests of the medical profession, than there is great opposition on the part of various groups which look upon the doctor and his Society affiliations as selfish in the extreme and anxious only to push such things as may be of pecuniary interest to him or to his Society.

The contest begins, therefore, for any bill, ordinarily within the legislative Committee, and it usually is not by reason of any personal animosity on the part of a Committeeman toward the bill in question but rather is it because the legislator has not been sufficiently informed or educated from the viewpoint of public health, and the ultimate desire of physicians.

Such being the case, your State Society Committee on Legislation can have a great lightening of its burden, if the individual doctor back home will but keep in close touch with his personal representatives in the legislature and endeavor to educate them from the viewpoint of public health as expressed through the medical profession.

With the complexities of practice and with physicians acting on their own initiative, we find, however, that many times an individual physician or a group of physicians is in favor of certain legislative measures which ultimately would deprive or restrict a doctor in his individual rights and play his interests into the hands of smaller groups within or without the profession.

Thus is it necessary constantly for your own Committee to be on its guard and endeavor to ascertain the sentiment of the majority of the profession as to its standing on certain questions.

Fortunately some questions have long ago been decided because of previous legislation, but new questions are constantly springing up and at times come forth so suddenly as to perplex your Committee relative to the right and proper stand to be taken; and its only means for ascertaining what is desired is from the comment offered by communications received or in answer to requests for comment which may be sent out.

Here, unfortunately, your Committee is many times given no support whatsoever, through the lack of speed exhibited by those to whom requests are sent. As witnessed by a communication received last year in the closing days of the session from a County Legislative Chairman, who wrote somewhat as follows: "I have just turned up on my desk, your telegram of three weeks ago, asking me to ascertain the sentiment of some of the practitioners in this vicinity relative to a bill, Number so and so, and am

hastening to answer it." That might have been satisfactory to us in the Bureau if the answer had come within a day or two, but in this instance it was highly unfortunate as the bill had been passed and settled long before his reply was received, and yet it so happened that that communication would have meant much to us in the knowledge contained, not in the words, but giving the thought and sentiment of that certain section relative to the question under consideration.

Many times we find that physicians have not followed the political trend of their communities and even are unacquainted with the name of the Senator or Assemblyman in their immediate vicinity, therefore there is incorporated below the complete list of the legislators by County for 1924; this should be preserved as a reference list since attention will be called to it from time to time.

As the election of officers within the County Societies takes place in December, the list of the new officers will not be published until a later issue.

It is to be hoped that more communications will circulate between the individual physicians and County Legislative Chairmen during the coming session, and thus greater thought be devoted on their part as to the manner in which better and more successful legislation may be forwarded in the 1924 session.

J. N. V.

LEGISLATORS BY COUNTIES

ALBANY COUNTY.

- Assembly, 1st Dist., William J. Snyder, Dem., 248 Madison Ave., Albany.
 2nd Dist., John A. Boyle, Dem., 48 Bassett St., Albany.
 3rd Dist., Frank Wilson, Dem., 108 Hudson Ave., Green Island.
 Senate, William T. Byrne, Dem., Loudonville.

ALEGANY COUNTY.

- Assembly, Cassius Congdon, Rep., West Clarksville.
 Senate, John Knight, Rep., Arcade.

BRONX COUNTY.

- Assembly, 1st Dist., Nicholas J. Eberhard, Dem., 300 E. 162d St., Bronx.
 2nd Dist., Lester W. Patterson, Dem., 201 Alexander Ave., Bronx.
 3rd Dist., Julius S. Berg, Dem., 887 Forest Ave., Bronx.
 4th Dist., Louis A. Schoffel, Dem., 1387 Crotona Ave., Bronx.
 5th Dist., Harry A. Samberg, Dem., 927 Fox St., Bronx.
 6th Dist., Thos. J. McDonald, Dem., 876 E. 224th St., Bronx.
 7th Dist., John F. Reidy, Dem., 636 E. 183d St., Bronx.
 8th Dist., Joseph E. Kinsley, Dem., 63 E. 190th St., Bronx.
 Senate, 21st Dist., Henry G. Schackno, Dem., 360 E. 166th St., Bronx.
 22nd Dist., Benjamin Antin, Dem., 920 Ave. St. John, Bronx.
 23rd Dist., John J. Dunnigan, Dem., 1941 Bogard Ave., Bronx.

BROOME COUNTY.

Assembly, 1st Dist., Edmund B. Jenks, Rep., Whitney Point.
2nd Dist., Forman E. Whitcomb, Rep., Endicott.
Senate, Clayton R. Lusk, Rep., Cortland.

CATTARAUGUS COUNTY.

Assembly, Leigh G. Kirkland, Rep., Randolph.
Senate, De Hart H. Ames, Rep., Franklinville.

CAYUGA COUNTY.

Assembly, Sanford G. Lyon, Rep., Aurora.
Senate, Chas. J. Hewitt, Rep., Locke.

CHAUTAQUA COUNTY.

Assembly, 1st Dist., Adolf F. Johnson, Rep., Jamestown.
2nd Dist., Jos. A. McGinnies, Rep., Ripley.
Senate, De Hart H. Ames, Rep., Franklinville.

CHEMUNG COUNTY.

Assembly, Hovey E. Copley, Rep., R. D. No. 2, Elmira.
Senate, Seymour Lowman, Rep., 614 Euclid Ave., Elmira.

CHENANGO COUNTY.

Assembly, Bert Lord, Rep., Afton.
Senate, Clayton R. Lusk, Rep., Cortland.

CLINTON COUNTY.

Assembly, Geo. W. Gilbert, Rep., Ellenburg Depot.
Senate, Mortimer Y. Ferris, Rep., Ticonderoga.

COLUMBIA COUNTY.

Assembly, Lewis F. Harder, Rep., Philmont.
Senate, J. Griswold Webb, Rep., Clinton Corners.

CORTLAND COUNTY.

Assembly, Irving F. Rice, Rep., Cortland.
Senate, Clayton R. Lusk, Rep., Cortland.

DELAWARE COUNTY.

Assembly, Ralph H. Loomis, Rep., Sidney.
Senate, Arthur F. Bouton, Rep., Roxbury.

DUTCHESS COUNTY.

Assembly, 1st Dist., Howard N. Allen, Rep., Pawling.
2nd Dist., John M. Hackett, Rep., Poughkeepsie.
Senate, J. Griswold Webb, Rep., Clinton Corners.

ERIE COUNTY.

Assembly, 1st Dist., Wm. J. Hickey, Rep., 121 Albany St., Buffalo.
2nd Dist., Henry W. Hutt, Rep., 761 Tonawanda St., Buffalo.
3rd Dist., Chas. D. Stickney, Rep., 773 Elliott St., Buffalo.
4th Dist., John J. Meegan, Dem., 41 South St., Buffalo.
5th Dist., Ansley B. Borkowski, Rep., 72 Woltz Ave., Buffalo.
6th Dist., Chas. A. Freiberg, Rep., 714 Northampton St., Buffalo.
7th Dist., Edmund F. Cooke, Rep., Alden.
8th Dist., Nelson W. Cheney, Rep., Eden.
Senate, 48th Dist., Parton C. Swift, Rep., 125 Hodge Ave., Buffalo.
49th Dist., Robert C. Lacey, Dem., 24 Hayward St., Buffalo.
50th Dist., Leonard W. H. Gibbs, Rep., 15 Depew Ave., Buffalo.
51st Dist., De Hart Ames, Rep., Franklinville.

ESSEX COUNTY.

Assembly, Fred. L. Porter, Rep., Crown Point.
Senate, Mortimer Y. Ferris, Rep., Ticonderoga.

FRANKLIN COUNTY.

Assembly, Geo. J. Moore, Rep., Malone.
Senate, Warren T. Thayer, Rep., Chateaugay.

FULTON AND HAMILTON COUNTIES.

Assembly, Eberly Hutchinson, Rep., Green Lake.
Senate, Theodore D. Robinson, Rep., Mohawk.

GENESEE COUNTY.

Assembly, Chas. P. Miller, Rep., So. Byron.
Senate, John R. Knight, Rep., Arcade.

GREENE COUNTY.

Assembly, Ellis W. Bentley, Rep., Windham.
Senate, Arthur F. Bouton, Rep., Roxbury.

HERKIMER COUNTY.

Assembly, Frederic S. Cole, Rep., Little Falls.
Senate, Theodore D. Robinson, Rep., Mohawk.

JEFFERSON COUNTY.

Assembly, H. A. Machold, Rep., Ellisburg.
Senate, Willard S. Augsbury, Rep., Antwerp.

KINGS COUNTY.

Assembly, 1st Dist., Chas. F. Cline, Dem., 87 Warren St., Brooklyn.
2nd Dist., Murray Hearn, Dem., 2114 Ave. K, Brooklyn.
3rd Dist., Frank J. Taylor, Dem., 47 Walcott St., Brooklyn.
4th Dist., Peter A. McArdle, Dem., 136 Hooper St., Brooklyn.
5th Dist., Jos. C. H. Flynn, Rep., 833 Herkimer St., Brooklyn.
6th Dist., Jos. Reich, Dem., 808 DeKalb Ave., Brooklyn.
7th Dist., John J. Howard, Dem., 453 55th St., Brooklyn.
8th Dist., Michael J. Reilly, Dem., 452 Baltic St., Brooklyn.
9th Dist., Richard J. Tonry, Dem., 468 83rd St., Brooklyn.
10th Dist., Bernard F. Gray, Dem., 984 Pacific St., Brooklyn.
11th Dist., Edw. J. Coughlin, Dem., 217 Clermont Ave., Brooklyn.
12th Dist., Marcellus H. Evans, Dem., 305 E. 4th St., Brooklyn.
13th Dist., Wm. Donnelly, Dem., 918 Metropolitan Ave., Brooklyn.
14th Dist., Jos. R. Blake, Dem., 185 North 5th St., Brooklyn.
15th Dist., John E. McCarthy, Dem., 124 Oak St., Brooklyn.
16th Dist., Maurice Z. Bungard, Dem., Manhattan Ave., Seagate, Brooklyn.
17th Dist., Julius Ruger, Dem., 35 Troy Ave., Brooklyn.
18th Dist., Irwin Steingut, Dem., 1357 Eastern Parkway, Brooklyn.
19th Dist., Anthony L. Palma, Dem., 238 Knickerbocker Ave., Brooklyn.
20th Dist., Frank A. Miller, Dem., 1277 Hancock St., Brooklyn.
21st Dist., Walter F. Clayton, Rep., 212 E. 17th St., Brooklyn.
22nd Dist., Howard C. Franklin, Dem., 251 Crescent St., Brooklyn.
23rd Dist., Jos. F. Ricca, Rep., 26 Gunther Place, Brooklyn.
Senate, 4th Dist., Philip W. Kleinfeld, Dem., 1338 E. 52nd St., Brooklyn.
5th Dist., Daniel F. Farrell, Dem., 373 17th St., Brooklyn.
6th Dist., Jas. A. Higgins, Dem., 197 St. Johns Place, Brooklyn.
7th Dist., John A. Hastings, Dem., 142-a Kosciusko St., Brooklyn.
8th Dist., Dr. Wm. L. Love, Dem., 857 Lincoln Place, Brooklyn.
9th Dist., Chas. E. Russell, Dem., 159 Sunnyside Ave., Brooklyn.
10th Dist., Jeremiah F. Twomey, Dem., 947 Manhattan Ave., Brooklyn.
11th Dist., Daniel F. Carroll, Dem., 135 N. 3rd St., Brooklyn.

LEWIS COUNTY.

Assembly, Miller B. Moran, Rep., Lowville.
Senate, Theodore D. Robinson, Rep., Mohawk.

LIVINGSTON COUNTY.

Assembly, Lewis G. Stapley, Rep., Geneseo.
Senate, John R. Knight, Rep., Arcade.

MADISON COUNTY.

Assembly, J. Arthur Brooks, Rep., Cazenovia.
Senate, Allen J. Bloomfield, Rep., Richfield Springs.

MONROE COUNTY.

Assembly, 1st Dist., Russell B. Griffith, Rep., Pittsford.
2nd Dist., Simon L. Adler, Rep., 17 Argyle St., Rochester.
3rd Dist., Vincent B. Murphy, Rep., 541 University Ave., Rochester.
4th Dist., Gilbert L. Lewis, Rep., Dewey Ave. Sta., Rochester.
5th Dist., Wallace R. Austin, Rep., Spencerport.
Senate, 45th Dist., James L. Whitley, Rep., 189 Barrington St., Rochester.
46th Dist., Homer A. E. Dick, Rep., 454 Hawley St., Rochester.

MONTGOMERY COUNTY.

Assembly, Samuel W. McCleary, Rep., Amsterdam.
Senate, Allen J. Bloomfield, Rep., Richfield Springs.

NASSAU COUNTY.

Assembly, 1st Dist., Edwin W. Wallace, Rep., Rockville Center.
2nd Dist., F. Trubee Davison, Rep., Locust Valley.
Senate, Geo. L. Thompson, Rep., Kings Park.

NEW YORK COUNTY.

Assembly, 1st Dist., Peter J. Hamill, Dem., 585 Broome St., N. Y.
2nd Dist., Frank R. Galgano, Dem., 57 Kenmare St., N. Y.
3rd Dist., Thos. F. Burchill, Dem., 347 West 21st St., N. Y.
4th Dist., Samuel Mandelbaum, Dem., 1 Sheriff St., N. Y.
5th Dist., Frank A. Carlin, Dem., 639 10th Ave., N. Y.
6th Dist., Morris Weinfeld, Dem., 231 E. 3rd St., N. Y.
7th Dist., Victor R. Kaufman, Rep., 176 West 87th St., N. Y.
8th Dist., Henry O. Kahan, Dem., 236 5th St., N. Y.
9th Dist., John H. Conroy, Dem., 66 W. 91st St., N. Y.
10th Dist., Phelps Phelps, Rep., 70 West 49th St., N. Y.
11th Dist., Samuel I. Rosenman, Dem., 226 W. 113th St., N. Y.
12th Dist., Paul T. Kammerer, Jr., Dem., 157 E. 46th St., N. Y.
13th Dist., John P. Nugent, Dem., 10 St. Nicholas Ave., N. Y.
14th Dist., Frederick L. Hackenburg, Dem., 336 E. 69th St., N. Y.
15th Dist., Jos. Steinburg, Rep., 24 E. 97th St., N. Y.
16th Dist., Maurice Bloch, Dem., 305 E. 87th St., N. Y.
17th Dist., Meyer Alterman, Dem., 60 E. 118th St., N. Y.
18th Dist., Owen M. Kiernan, Dem., 163 E. 89th St., N. Y.
19th Dist., James Male, Dem., 540 Manhattan Ave., N. Y.
20th Dist., Louis A. Cuvillier, Dem., 172 E. 122nd St., N. Y.
21st Dist., Henri W. Shields, Dem., 208 W. 141st St., N. Y.
22nd Dist., Joseph Gavegan, Dem., 557 W. 114th St., N. Y.
23rd Dist., Nelson Rutenbergl, Dem., 286 Ft. Washington Ave., N. Y.

NEW YORK COUNTY.

Senate, 12th Dist., James J. Walker, Dem., 6 St. Luke's Place, N. Y.
13th Dist., Ellwood M. Rabenold, Dem., 321 W. 55th St., N. Y.
14th Dist., Bernard Downing, Dem., 306 E. Broadway, N. Y.
15th Dist., Nathan Straus, Jr., Dem., 13 W. 76th St., N. Y.
16th Dist., Thos. I. Sheridan, Dem., 245 E. 19th St., N. Y.
17th Dist., Meyer Levy, Dem., 108 W. 111th St., N. Y.
18th Dist., (Special election is to be held to elect some one in Senator Cotillo's place.)
19th Dist., Duncan T. O'Brien, Dem., 161 E. 122nd St., N. Y.
20th Dist., Michael E. Reiburn, Dem., 665 W. 160th St., N. Y.

NIAGARA COUNTY.

Assembly, 1st Dist., Mark T. Lambert, Rep., Lockport.
2nd Dist., Frank S. Hall, Rep., Lewiston.
Senate, Wm. W. Campbell, Rep., 283 High St., Lockport.

ONEIDA COUNTY.

Assembly, 1st Dist., John C. Devereux, Rep., 1609 Genesee St., Utica.
2nd Dist., Russell G. Dunmore, Rep., New Hartford.
3rd Dist., George J. Skinner, Rep., Camden.
Senate, Fred W. Davenport, Rep., Clinton.

ONONDAGA COUNTY.

Assembly, 1st Dist., Horace M. Stone, Rep., Marcellus.
2nd Dist., Geo. M. Haight, Dem., 152 W. Seneca St., Onondaga Valley.
3rd Dist., Richard B. Smith, Rep., 411 Elm St., Syracuse.
Senate, George R. Fearon, Rep., 935 University Ave., Syracuse.

ONTARIO COUNTY.

Assembly, Chas. C. Sackett, Rep., Canandaigua.
Senate, Ernest E. Cole, Rep., Bath.

ORANGE COUNTY.

Assembly, 1st Dist., Clemence C. Smith, Rep., Meadowbrook.
2nd Dist., Chas. L. Mead, Rep., 24 Mulberry St., Middletown.
Senate, Caleb H. Baumes, Rep., 67 Farrington St., Newburgh.

ORLEANS COUNTY.

Assembly, Frank H. Lattin, Rep., Albion, R. D. No. 7.
Senate, Wm. W. Campbell, Rep., 283 High St., Lockport.

OSWEGO COUNTY.

Assembly, Victor C. Lewis, Rep., Lewis House, Fulton.
Senate, Willard S. Augsbury, Rep., Antwerp.

OTSEGO COUNTY.

Assembly, Julian C. Smith, Rep., 21 Ford Av., Oneonta.
Senate, Allen J. Bloomfield, Rep., Richfield Springs.

PUTNAM COUNTY.

Assembly, John R. Yale, Rep., Brewster.
Senate, J. Griswold Webb, Rep., Clinton Corners.

QUEENS COUNTY.

Assembly, 1st Dist., Henry M. Dietz, Dem., 385 9th Ave., Astoria, L. I.
2nd Dist., Owen J. Dever, Dem., 2552 Gates Ave., Ridgewood, L. I.
3rd Dist., Alfred J. Kennedy, Dem., 51 S. 8th Ave., Whitestone.
4th Dist., D. Lacy Dayton, Rep., Ashburton Av., Bayside.
5th Dist., Wm. F. Brunner, Dem., 214 Beach 116th St., Rockaway Park.
6th Dist., Paul P. Gallagher, Dem., 2385 Van Courtland Ave., Ridgewood.
Senate, 2nd Dist., Frank Giorgio, Dem., Woodhaven.
3rd Dist., Peter J. McGarry, Dem., Blissville.

RENSSELAER COUNTY.

Assembly, 1st Dist., John H. Westbrook, Dem., 171 Congress St., Troy.
2nd Dist., Henry Meurs, Rep., Rensselaer.
Senate, John P. Ryan, Dem., 380 8th St., Troy.

RICHMOND COUNTY.

Assembly, 1st Dist., Wm. S. Hart, Dem., 475 Oakland Ave., W. New Brighton.
2nd Dist., Wm. L. Vaughan, Dem., 229 Fisher Ave., Tottenville.
Senate, Mark W. Allen, Dem., 45 Brownell St., Stapleton.

ROCKLAND COUNTY.

Assembly, Walter S. Gedney, Rep., Nyack.
Senate, Mark W. Allen, Dem., 45 Brownell St., Stapleton.

ST. LAWRENCE COUNTY.

Assembly, 1st Dist., William A. Laidlaw, Rep., Hammond.
2nd Dist., Chas. L. Pratt, Rep., Massena.
Senate, Warren T. Thayer, Rep., Chateaugay.

SARATOGA COUNTY.

Assembly, Burton D. Esmond, Rep., Ballston.
Senate, Fred W. Kavanaugh, Rep., Waterford.

SCHENECTADY COUNTY.

Assembly, 1st Dist., Chas. W. Merriam, Rep., 20 Parkwood Blvd., Schenectady.
2nd Dist., Wm. M. Nicoll, Rep., Scotia.
Senate, Fred W. Kavanaugh, Rep., Waterford.

SCHOHARIE COUNTY.

Assembly, Kenneth H. Fake, Rep., Cobleskill.
Senate, Allen J. Bloomfield, Rep., Richfield Springs.

SCHUYLER COUNTY.

Assembly, William Wickham, Rep., Hector.
Senate, Seymour Lowman, Rep., 614 Euclid Ave., Elmira.

SENECA COUNTY.

Assembly, Wm. H. Van Cleaf, Rep., Seneca Falls.
Senate, Chas. J. Hewitt, Rep., Locke.

STEBEN COUNTY.

Assembly, Wilson Messer, Rep., 334 W. Pulteney St., Corning.
Senate, Ernest E. Cole, Rep., Bath.

SUFFOLK COUNTY.

Assembly, 1st Dist., James G. Peck, Rep., Southampton.
2nd Dist., John Boyle, Jr., Rep., Huntington.
Senate, George L. Thompson, Rep., Kings Park.

SULLIVAN COUNTY.

Assembly, Guernsey T. Cross, Dem., Callicoon.
Senate, Caleb H. Baumies, Rep., 67 Farrington St., Newburgh.

TIOGA COUNTY.

Assembly, Daniel P. Witter, Rep., Berkshire.
Senate, Seymour Lowman, Rep., 614 Euclid Ave., Elmira.

TOMPKINS COUNTY.

Assembly, Jas. R. Robinson, Rep., 313 E. Mill St., Ithaca.
Senate, Seymour Lowman, Rep., 614 Euclid Ave., Elmira.

ULSTER COUNTY.

Assembly, Simon B. Van Wagenen, Rep., Sleightsburgh.
Senate, Arthur F. Bouton, Rep., Roxbury.

WARREN COUNTY.

Assembly, Milton N. Eldridge, Rep., Warrensburg.
Senate, Mortimer Y. Ferris, Rep., Ticonderoga.

WASHINGTON COUNTY.

Assembly, Herbert A. Bartholomew, Rep., Whitehall.
Senate, Mortimer Y. Ferris, Rep., Ticonderoga.

WAYNE COUNTY.

Assembly, George S. Johnson, Rep., Palmyra.
Senate, Chas. J. Hewitt, Rep., Locke.

WESTCHESTER COUNTY.

Assembly, 1st Dist., T. Channing Moore, Rep., Bronxville.
2nd Dist., Herbert B. Shonk, Rep., Scarsdale.
3rd Dist., Milan E. Goodrich, Rep., Ossining.
4th Dist., Alexander H. Carnjost, Rep., Yonkers.
5th Dist., Arthur I. Miller, Dem., Yonkers.
Senate, 25th Dist., Walter Westall, Rep., White Plains.
26th Dist., Seabury C. Mastik, Rep., Pleasantville.

WYOMING COUNTY.

Assembly, Webber A. Joiner, Rep., Attica.
Senate, John R. Knight, Rep., Arcade.

YATES COUNTY.

Assembly, James H. Underwood, Rep., Middlesex.
Senate, Ernest E. Cole, Rep., Bath.

Deaths

ANDERSON, JAMES H., Brookline, Mass., New York University, 1860; Member State Society. Died December 10, 1923.

BRANTH, JOHN HERMAN, New York City; Miami Medical College, 1875; Fellow American Medical Association; Member State Society. Died November 1, 1923.

BRENNAN, EDWARD F., New York City; New York University, 1896; Fellow American Medical Association; Member State Society; Assistant Surgeon Bronx Eye and Ear Infirmary. Died November 29, 1923.

CRAIG, JOSEPH DAVIS, Albany; Albany Medical College, 1884; Fellow American Medical Association; American Association of Anatomists; American Academy of Medicine; Member State Society; Physician Albany Hospital. Died November 5, 1923.

FRANKLIN, ALBERT VIRGIL, New York City; Cornell Medical College, 1911; Fellow American Medical Association; Member State Society. Died November 16, 1923.

HITCHCOCK, CHARLES, New York City; College of Physicians and Surgeons of New York, 1872; Member State Society. Died December 5, 1923.

McFARLAND, WILLIAM LANDRAM, Washington, D. C.; College of Physicians and Surgeons of New York, 1901; Fellow American Medical Association; Member State Society; New York Academy of Medicine. Died November 14, 1923.

WAGNER, CHARLES GRAY, Binghamton; College of Physicians and Surgeons, N. Y., 1882; Member State Society; Member American Psychiatric Society (President 1917). Former Assistant Physician Utica State Hospital, 1844-92; Medical Superintendent Binghamton State Hospital, 1892 to death; Associate Editor, American Journal of Insanity, 1884-92. Died November 6, 1923, of nephritis, aged 67.

DEPARTMENT OF LAW

By George W. Whiteside, Esq.

DIPLOMA MILLS AND MEDICAL QUACKS

The recent investigation of a grand jury in Connecticut has shown that numerous persons in that state have apparently been licensed as physicians upon false credentials of pre-medical and academic study and in some cases upon medical diplomas fraudulently procured. There has been an encouraging public approval of the action of the authorities in their attempt to rectify the conditions that have made such practice possible and to punish those who have practiced the frauds.

In the State of New York the laws of licensure for physicians appear to be adequate and have been so administered as to make the occurrence of such frauds as have been exposed in the bordering state quite impossible here. Whilst this is true of the laws and procedures for the licensing of physicians, it is equally true that the law restricting the practice of medicine to those duly licensed is openly and notoriously flaunted. The state issues a license to practice medicine and enacts laws to protect that license against imposters and does practically nothing to enforce such laws. There is no centralized bureau or department of the state charged with the duty of inspection and investigation to determine whether unlicensed persons are practising, or to prosecute such cases of unlawful practice that are known to exist.

The medical societies in the various counties have in the past been an ineffective substitute for such state bureau or department and the number of unlicensed practitioners has grown so large and their operations have become so flagrant, that the condition is quite beyond the control of any such organization. In the large congested cities it is quite possible for a person to practice under the license and diploma of a physician long since dead, and his discovery and exposure would come, if at all, quite by accident.

In this state the first act of state-wide application requiring a duly licensed physician to register in the county clerk's office of the county in which his office was located, was passed forty-three years ago. Since that time there has been added each year the names of licensed practitioners to the official rolls. Many of those whose names appeared as licensed have long since died, removed from the state or retired from practice. There is no systematic check upon those so registered to ascertain if they are still practicing. Should a person other than the licensee be using a diploma of one of these deceased practitioners, he would apparently be less likely to be discovered than would the man whose name does not appear upon the county clerk's roll. He would have the apparent indicia of authority to practice and any suspicion on the part of his patients

would be allayed by the diploma openly displayed in his office.

There can be no doubt that the records of licensed practitioners in the county clerks' offices throughout the state should be cleared of all names other than the living, duly licensed practitioners, and in addition, there should be a complete list of licensed physicians throughout the state kept in an appropriate office at Albany under a system adequately adapted to make such list an authoritative and accurate record.

The absence of the name of a person using the title "Dr." from the official list of licensed physicians should be sufficient *prima facie* proof that such person is unlawfully practicing medicine. If a mistake were made in the list and a duly licensed physician were prosecuted he could readily show his authority and be freed of any charge, and those not so registered and authorized could be promptly convicted and punished.

A system of annual registration for physicians such as now exists for dentists, has been proposed for this purpose by the Regents. This suggestion may have value as far as it goes, but it does not go far enough to effect a substantial remedy of present conditions. It must be supplemented by an efficient system of inspection throughout the state to detect those who are unlicensed and unregistered practitioners, and there must, furthermore, be enacted more stringent laws for the punishment of the offenders. Such supervision and inspection must be state-wide, under a state body or officer, and the enforcement of the law should be upon his initiative. Let such state officer be authorized to supply the district attorneys with evidence for criminal prosecution, and if the district attorneys fail to act, to supersede them by the Attorney-General, and in addition, let the law provide civil penalties against the offenders, to be enforced by the Attorney-General. Were such system as is here suggested put in force with intelligent and aggressive enforcement, it would be made not a mere nuisance to the law-abiding physician who would be required to register, but a strong offensive weapon against the many unlicensed and unqualified practitioners who now openly deceive the public with the title "Dr."

Let those who practice medical massage and who are duly qualified and experienced in that work, if need be, be licensed under proper regulation as such, but strike from their signs and advertisements the title "Dr." which they have unlawfully assumed and continue to use. Make the title "Dr." really mean something to the public. Let it be at least a guarantee that the person assuming and using such title has passed the necessary tests prescribed by the state, both as to education and experience, to undertake the

practice of the healing art. Let the Department of Education, that is now charged with the duty of determining the standards of institutions that are now entitled to grant a doctor's degree, see to it that the state be not flooded as it now is with spurious "Drs." with diplomas from the numerous "Mills" throughout the country.

The profession, however, must be on its guard that in the enactment of any measures to reform the conditions that have been here discussed, that the right of the physician who has legally earned his diploma and license should not be infringed. His status must not be disturbed or unsettled in the program of reform. The right of the present legally licensed practitioner of medicine to continue his practice must be absolute and not conditional.

While failure to register under such a proposed law might render a physician liable to a penalty, under no condition should his inadvertent failure to re-register work a forfeiture of his rights under his original license. Any law which may be proposed for such registration must adequately provide for these safeguards, and possibly others, in order that onerous burdens be not placed upon the legally qualified practitioner.

G. W. W.

DEFENSE A MATTER OF PRINCIPLE

When you take full coverage liability insurance on your automobile you pay what appears to be a very excessive price—a price quite out of proportion to the actual hazard that you insure. Why is this price so high? One of the main reasons doubtless is that the insurance companies pay a great deal of money on claims made against their insured when there is no merit in the claim. They do this often at the behest of the insured so as to save him annoyance and sometimes on their own initiative to save the expense or bother of trial. So because such a policy is pursued, automobile insurance rates will continue high, and the insured through the payment of the premiums will pay not to be insured against mere liability, but to be saved inconvenience and trouble when groundless claims are made.

The State Society's group insurance plan for physicians, insuring them against claims made by patients, is not and will not be conducted on any such principle. The purpose of the group insurance plan is to give the physician every possible protection against unjust claims either by defeating the claim if the physician is not liable, or by defeating extortionate demands far in excess of

the damage sustained when the physician is liable. We never settle a case merely because it has a nuisance value. We do not encourage lawyers to bring these cases by paying them a nuisance value for the case. We discourage lawyers taking these malpractice cases by fighting the case, when it is without merit, to the bitter end. The fact that the doctor is insured does not work any change in this practice. The group insurance is not designed for the purpose of buying off extortionists or those who through unmeritorious claims against physicians seek to levy tribute. We pay any liability that is just. We thus compensate a patient who has been damaged through error or mistake of the physician. Malpractice insurance is not employed merely to save the doctor trouble or inconvenience, but is offered as a protection against the law hazards of his practice. The premium rate of \$18 per year for \$5,000-\$15,000 coverage is based on this theory and can only be maintained when we follow the practice of handling the claims by the methods now employed. Your co-operation is necessary in the carrying out of this policy, if you desire this insurance protection at the present rates. Any other policy of malpractice insurance will mean that the rates therefor will soar as those for automobile insurance until the cost becomes prohibitive.

G. W. W.

Forum for Correspondents

The Council at a meeting held in Albany, April 24, 1922, moved, seconded and carried:

That the Journal be not used to in any way suppress any expression of opinion; and that its correspondence columns be open for all proper communications; and that "proper" communications will be deemed those which are not slanderous or libelous in their nature.

Nov. 26, 1923.

Editor of the New York State Journal of Medicine:

In regard to an article in the November issue entitled *Neurology in Greater New York*, by Drs. Charles A. Dana and Thomas K. Davis:

As a matter of accuracy, it might be well to supply the correct figures pertaining to the neurological service at the Kings County Hospital. Certainly the figures appearing on page 450, presumably gathered by Dr. Davis as reported by Dr. Dana, are far from the fact.

For fifteen years, since 1908, there have been set aside at the Kings County Hospital, in various wards, 50 beds for neurological cases admitted in the acute or sub-acute stage—25 male, 15 female and 10 in the children's hospital. There are 180 beds in the chronic neurologic wards; not 850 as reported by the investigator.

Sincerely yours,

ROBERT O. BROCKWAY.

Notes

CORNELL UNIVERSITY MEDICAL COLLEGE

AMERICAN JOURNAL OF ROENTGENOLOGY & RADIUM THERAPY

The American Journal of Roentgenology & Radium Therapy, the official organ of The American Roentgen Ray Society and the American Radium Society, will appear in enlarged form in 1924, the increased pages being given to more illustrations, more abstracts and more original articles. Dr. A. C. Christie, who was Colonel in charge of roentgenology in the U. S. Army during the war, will be the editor. Dr. James T. Case, Dr. H. K. Pancoast and Dr. W. Duane will be the associate editors with a large collaborating staff of the leading roentgenologists in the country.

AMERICAN ASSOCIATION FOR THE STUDY OF GOITER

The American Association for the Study of Goiter, composed of Goiter Surgeons, Pathologists, Anæsthetists, Internists, and Radiologists, will have its annual meeting in Bloomington, Ill., the 23rd, 24th, and 25th of January. An interesting program has been arranged consisting of papers, demonstrations and diagnostic and operative clinics.

NEW YORK POST GRADUATE MEDICAL SCHOOL AND HOSPITAL

The following lectures will be held on Friday afternoons at five o'clock at the Hospital: January 4th, "The Clinical Use of Basal Metabolism," Dr. Cameron V. Bailey; January 11th, "Radium Therapy" (with Moving Pictures), Dr. George S. Willis; January 18th, "A Plea for a Broader Conception of Dermatology," Dr. Henry H. Whitehouse; January 25th, "Reconstruction Surgery" (with Lantern Slides and Moving Pictures), Dr. Fred H. Albee.

ASSOCIATED OUT-PATIENT CLINICS OF THE CITY OF NEW YORK

At a meeting of the Section on Medicine of the Associated Out-Patient Clinics held at the Academy of Medicine Wednesday, November 21, the subject for discussion was the standards for medical clinics drafted by the Executive Committee of the Section. The program included the following topics:

"Should the Number of Patients Admitted be Limited in Relation to the Number of Physicians?"

Discussion opened by Dan H. Witt, M.D.

"Should Patients be Diagnosed in the General Medical Clinic Before Assignment to Special Classes?"

Discussion, I. Ogden Woodruff, M. D., Arthur L. Holland, M. D., John Wyckoff, M.D.

"Is Thoroughness of Records Essential to Efficient Work in Medicine?"

Discussion opened by Emanuel Libman, M.D.

"Should Records be Filed Centrally?"

Discussion opened by Maximilian Schulman, M.D.

"What Should be the Relation of the Out-Patient Staff to the Medical Staff of the Hospital?"

Discussion opened by Walter P. Anderton, M.D.

"Value and Use of Standards?"

Discussion opened by D. P. Barr, M.D.

"Suggestions for Further Activities of the Section?"

Discussion opened by Peter Irving, M.D.

The proposed standards were adopted as a tentative expression of the will of the Section.

Cornell University announces the receipt of a gift of \$200,000 from an anonymous donor for the purpose of establishing an endowment fund, the proceeds of which are to be devoted to research work in the Department of Pediatrics in Cornell University Medical College in New York City.

Up to recent times comparatively little of importance has been accomplished in children's diseases in this country owing to the lack of proper facilities. Only a few of the larger Universities have been able to establish Departments of Pediatrics sufficiently endowed to enable them to encourage and carry on constructive work, and the recent progress in this field has been largely due to their efforts.

This gift to Cornell University is therefore far reaching in its significance, as it will not only make possible the pursuit of investigation in the large field which pediatrics offer, but also to train young men and women in the modern methods of investigation and practice.

EXAMINATION FOR ENTRANCE INTO THE REGULAR CORPS OF THE UNITED STATES PUBLIC HEALTH SERVICE

Examinations of candidates for entrance into the Regular Corps of the U. S. Public Health Service will be held at the following-named places on the dates specified:

At Washington, D. C. January 7, 1924

At Chicago, Ill. January 7, 1924

At San Francisco, Cal. January 7, 1924

Candidates must be not less than twenty-three nor more than thirty-two years of age, and they must have been graduated in medicine at some reputable medical college, and have had one year's hospital experience or two years' professional practice. They must pass satisfactorily oral, written and clinical tests before a board of medical officers and undergo a physical examination.

Successful candidates will be recommended for appointment by the President with the advice and consent of the Senate.

Requests for information or permission to take this examination should be addressed to the Surgeon General, U. S. Public Health Service, Washington, D. C.

DR. S. JOSEPHINE BAKER

of New York, has been appointed consulting director in Maternity and Infancy and Child Hygiene of the Children's Bureau of the United States Department of Labor, at Washington.

NOTES ON NURSES AND NURSING

ARNOT-OGDEN MEMORIAL HOSPITAL

Miss Vera Kinley is in charge of the men's wards, relieving Miss Ethel Hunter, who is on sick leave.

Miss Edith Hammer was married to Jerome Thompson, of Elmira, on Nov. 15. They will reside in Elmira.

On Nov. 30, the Juniors of the Training School gave a dance to the graduating class, and on Dec. 3 the alumnae gave a dinner at the Country Club to the graduates.

On Dec. 5, sixteen nurses were graduated from the Training School.

STATE DEPARTMENT OF HEALTH NOTES

PRIVATE LABORATORIES AND REPORTS OF COMMUNICABLE DISEASES.

The following is a copy of an opinion given by the Attorney General to the State Commissioner of Health in regard to the duty of each private laboratory to report positive laboratory results from specimens which indicate the existence of a case of communicable disease:

SECTION 25 OF THE PUBLIC HEALTH LAW. CONSTRUCTION OF AMENDMENT CONCERNING DIAGNOSIS BY LABORATORIES AND PERSONS OF SPECIMENS DISCLOSING INFECTIOUS AND CONTAGIOUS OR COMMUNICABLE DISEASES.

Statement.

The amendment of 1918 to Section 25, in question, reads as follows:

"Whenever an examination for diagnosis by a laboratory or by any person other than the physician in charge of the person from whom the specimen is taken, of any specimen discloses the existence of a case of infectious and contagious or communicable disease, the person in charge of such laboratory or the person making such examination shall immediately report the case, together with all the facts in connection therewith, to the health officer of the city, town or village where such laboratory is situated and also to the health officer of the city, town or village from which such specimen came and shall keep a permanent record of all the facts in connection with such examination, including the identity of the person from whom the specimen is taken and the name of the physician, if any, sending such specimen."

Inquiry.

Does the requirement of notice therein contained apply to so-called private laboratories in distinction from those maintained by cities or counties and also to a physician conducting a private laboratory and examining species for diagnostic purposes?

Opinion.

In my opinion no exception is made in the case of private laboratories or physicians conducting private laboratories where specimens are examined for diagnostic purposes.

The entire Section 25 is intended as a safeguard for the public, and disregards any question of confidential relationship which might otherwise arise.

This new portion of Section 25 in its requirement that laboratories and persons other than the physician in charge of the patient notify the health officer, etc., is merely intended as a complement of the other older portion of the section which orders the physician in attendance to make report to the proper authorities of any person suffering from an infectious and contagious or communicable disease, and allowing for every such report a compensation of 25 cents per case.

The intent of the legislature was to place the duty of the physician to the community at large a greater one than his duty to consider information received through treatment of his patient, as confidential, and therefore privileged against disclosure.

It would seem as though this section of the Public Health Law is in direct conflict with Section 352 of the Civil Practice Act, which makes information received by a physician in the course of his confidential relationship with patients, privileged and undisclosable, but the Public Health Law section is controlling and the above quoted portion of Section 25 is controlling, as having been enacted by the legislature in 1918, long after the drafting of Section 352 of the Civil Practice Act, formerly Section 834 of the Code of Civil Procedure. This privilege, contrary to the impressions of many, is not constitutional but statutory only.

In conclusion, therefore, the requirement of notice contained in the 1918 amendment to Section 25 of the

Public Health Law applies to private laboratories and also to a physician conducting a private laboratory and examining specimens for diagnostic purposes only.

(Signed) CARL SHERMAN, *Attorney General.*

CLASS IN PUBLIC HEALTH NURSING MEETS IN NEW YORK CITY.

Thirty-six nurses, representing all parts of New York State, attended a conference in New York City during the week of October 22-27th. This conference constitutes an important part of the work of the course in public health nursing, given by the Department of Hygiene of the University and Bellevue Hospital Medical College in cooperation with the New York State Health Department.

The conference was opened with an address of welcome by Dr. William H. Park, Professor of Hygiene and Bacteriology of the College, who expressed his deep regret that the death of Dr. Biggs, the late Commissioner of Health of New York State, had deprived the nurses of being welcomed by the one whose efforts were responsible for the establishment of the course. Dr. Park described the history of the public health movement in New York City and in New York State which commenced with the recording of deaths, births and cases of contagious diseases, and gradually extended until the present great organizations dealing with all phases of community health were evolved.

Following the address of Dr. Park, the nurses were given a practical demonstration of how the state laboratory assists in the diagnosis and control of communicable diseases. The afternoon of the first day was devoted to a study of the control of tuberculosis, special attention being given to the place occupied by clinics in this work.

During the remainder of the week the nurses were shown further practical applications of their previous theoretical studies.

ALLOCATION OF SHEPPARD-TOWNER FUNDS.

The plan for the distribution of funds, made available by the Federal Sheppard-Towner Act, to be used for the protection of maternity and infancy, was outlined at a conference of District State Health Officers held at Albany, October 18th.

The State Department of Health will endeavor to allot these funds through such avenues of work as will most effectively accomplish results, and to this end there is now available to certain communities, particularly those who have an excessive number of infant and maternal deaths, a limited sum not to exceed \$800 for the partial payment of the salaries of properly qualified nurses. This is not to be granted to any private organization, and will be paid only into the municipal treasury.

The money allotted may be used only for the payment of a nurse's salary, and may not be used for maintenance, equipment or other incidental expenses. The nurse drawing this salary must devote an amount of time to maternity, infant and pre-school work, proportionate to the amount of state funds invested in her salary.

NEW HOSPITAL PROJECTS IN RURAL NEW YORK.

The people of Warsaw, a village of less than 4,000 population, have raised \$60,000 with which to build a community hospital, one wing of which is now under construction; Medina, a village of 6,000, has appointed a committee to plan for a new hospital. Such a step is in accordance with the policy adopted at the conference of health officials and representative medical societies held last winter at the call of Governor Smith. At that time the lack of hospital facilities in all but the larger centers of the state was emphasized, and the conference agreed that extension of such facilities was needed if persons residing in the less populated sections of the state were to receive proper medical attention.

PRUNES

*Contributions Invited**A Letter from Old Doc Traprock:*

SIR: I feel sure that you must share the satisfaction which filled my heart when I learned that the notorious Dr. Frederick A. Cook had at last reached his logical goal behind the bars. His conviction and detention, for a time at least, relieve all travelers, explorers and gentlemen adventurers from the obliquity, not to say derision, cast by mere mention of his name over our entire guild.

Exploits of the adventurous and romantic type may well be accepted, *cum grano salis*, without offense; they belong to the imaginative type, to whom all is forgiven so long as they are amusing.

But to us who carry the banner of exact Science and Discovery to the far parts of the earth, the incarceration of this reprobate is good news indeed. For too many years has his sooty reputation blackened the lamp chimney of Truth until even I have had to appear before various scientific bodies, *on charges*, to personally establish my claims. Imagine my joy, then, upon my return from Cairo last week, at learning that the sleek rascal had skidded in one of his own oil pools and now bids fair to disappear for twelve years.

Let us waste no sympathy on Cook. He can make discoveries from his prison cell as well as anywhere and will doubtless emerge with a tale surpassing anything he has as yet created.

May I be pardoned the recounting of a personal incident which shows the advantage of the other course, namely, that of walking the chalk line of veracity undeviatingly and uncompromisingly at all times?

The day after my arrival in New York I was summoned to Boston by Professor Mudgett, of the Explorers Union (Cambridge Chapter). My train stopped at New Haven, the seat of my alma mater. How the student body had learned of my plans I cannot say, but the station was crowded with thousands of undergraduates. . . . There was a band, cheering, songs, speeches; in short, a tremendous ovation which lasted until my train had pulled out. To say that I was touched is putting it faintly; I was overcome at this demonstration, vindicating so clearly my life slogan, "Truth will prevail."

An interesting feature of my journey was that the Yale football team and substitutes accompanied me from New Haven to Boston. I had the pleasure of meeting some of them—charming boys, filled, of course, with the delightful conceit of youth. How well I remember when I was that way myself.

I remain, without change,

Sincerely yours,

WALTER E. TRAPROCK,

—*N. Y. Tribune*

Slightly Dislocated*Speech of Admiral Horthy, Repent of Hungary.*

I see in my audience few people dressed in the linen trousers of our national costume, and yet the true Magyar heart beats only in the national Magyar trousers.

"Doctor," asked the invalid, "don't you think a change to a warmer climate would do me good?"

"Heavens, man!" replied the doctor, "that's just what I'm trying to save you from!"

Sun Flowers and Daisies

Graceful green stalks growing skyward,
Faces all turned to the sun,
Sun flowers grow by the thousands, beautiful every one;
Golden the dust of their pollen, wafted on every breeze,
One of the wonders of nature,
Gosh, how it makes me sneeze.

Delicate little white daisies,
Gleaming with silvery dew,
Modest retiring beauties, who would think evil of you?
Lowly you grow in the meadows, living your humble
lives,
But when you are made into serum,
Gosh, how you give me hives.

No one admires the cabbage
Save and excepting as food,
Scored and unsung by the poets, object of ridicule rude.
By all the choice of my membranes, larynx and nose
and ear,
You are my favorite flower,
You'll be my boutonniere.

JOSEPH P. LOEB,

Los Angeles, Calif.

Contributed by Dr. J. E. Mackenty.

Auto-Mania

Here lies the body of Jim Lake,
Tread softly all who pass;
He thought his foot was on the brake,
But it was on the gas.

—*Typo Graphic.*

At sixty miles
Drove Willie Smidder;
He lost control
His wife's a widder.
—*Town and County, Pennsburg, Pa.*

Here lies what's left
Of Henry Glenn;
Match in gas tank—
Up went Hen.
—*San Francisco Chronicle.*

Bill Turpin sneered
At careful folk;
He hasn't sneered
Since his axle broke.
—*Pitt Panther.*

Ben Higgins never would be passed,
He bragged his car's endurance.
He passed six cars with backward glance—
His wife has his insurance.
—*Pitt Panther.*

Serious

"Your wife is looking well!"
"Yes. Just fancy. When I took her to the sanatorium she was so bad that I wouldn't risk buying a return ticket!"—*Sondags Nisse (Stockholm).*

Medical Society of the State of New York

County Societies

BRONX COUNTY MEDICAL SOCIETY

REGULAR MEETING, NOVEMBER 21, 1923

The meeting was called to order at 8.40 P. M., at the Concourse Plaza. The President, Dr. Leiner, in the Chair.

The following members were elected: Abraham Holzman, Joseph Nach, Thomas J. O'Kane.

Dr. Van Etten reported for the Decennial Banquet Committee.

Dr. Keller proposed the following By-Laws Amendments.

Section 7: Add "a Corresponding Secretary" after "a Secretary."

Section 11: Add "the Corresponding Secretary" after "the Secretary."

Section 34: Add "The duties of the Corresponding Secretary shall be to assist the Secretary."

The President announced that the following Amendments were ready to be acted upon:

(1) "The Bronx County Medical Society shall organize, own and maintain a Library."

(2) "The Bronx County Medical Society shall organize sections in the various specialties."

Moved, seconded and carried, that they be approved.

Dr. Gitlow moved that the Bronx County Medical Society accept the Bronx Society for the Study of Clinical Medicine as its first Section. Dr. Podvin introduced an Amendment that the matter be submitted to the Comitia Minora for report at a subsequent meeting.

Dr. Gitlow proposed an Amendment to the Amendment that the Comitia Minora have power to act in this matter so as to accept the newly formed Society. Dr. Podvin accepted the Amendment. The motion with Amendments was put and carried.

Nomination of Officers for the year 1924 being in order, the following gentlemen were nominated: For President, Edward C. Podvin; for First Vice-President, Simon M. Jacobs; for Second Vice-President, Edward R. Cunniffe; for Secretary, I. J. Landsman; for Treasurer, J. A. Keller; for Board of Censors (two to be elected), L. A. Friedman, Sidney Cohn, Samuel Gitlow; for Delegates Harry Aranow, Nathan B. Van Etten, Norman Roth, Edward R. Cunniffe; for Alternates, Samuel Rosenzweig, William Klein, Arthur J. O'Leary, Martin J. Loeb.

SCIENTIFIC SESSION

"The Treatment of Diabetes with Insulin and Diet" Frederick M. Allen, M.D.

Discussion by Drs. A. I. Ringer, William Weinberger, Alexander Goldman, J. B. Cohen, N. Lukin and D. A. Newman. Dr. Allen closed the discussion.

Moved, seconded and carried that a vote of thanks be extended to Dr. Allen and the gentlemen who discussed his paper.

MEDICAL SOCIETY OF THE COUNTY OF DELAWARE

BANQUET, NOVEMBER 7, 1923, STAMFORD

The banquet which was held at the Ivanhurst was a brilliant affair, physicians attending it from towns sixty miles away, in spite of a heavy rainstorm. Twenty-one physicians, the county judge and two newspaper editors were present.

A fine spirit of interest and support of the project in hand prevailed, and it would seem that the "Old Delaware County Medical Society" (organized in 1806) is in a fair way to become one of the best county societies in the Empire State.

It was unanimously voted to hold three meetings a year hereafter—one in May, the regular annual meeting for the election of Officers and new members in June, and a banquet in October.

MEDICAL SOCIETY OF CLINTON COUNTY

ANNUAL MEETING, NOVEMBER 20, 1923, AT
PLATTSBURG

The meeting was preceded by a luncheon at the Monopole grill, at which eleven were present.

The business meeting was called to order at 2 P. M. in the Board of Health rooms, City Hall, by Dr. W. H. Ladue, President. The following members were present: Drs. M. D. Briggs, George R. Allen, Harold R. Robert, Charles M. Burdick, T. Avery Rogers, Warren H. Everett, A. A. de Grandpre, J. H. LaRocque, Edward S. McDowell, L. G. Barton, Jr., Leo F. Schiff.

The minutes of the semi-annual meeting and of the meetings of the Comitia Minora were read and approved.

The following names were placed in nomination: For President, Edwin W. Sartwell; Vice-President, Charles M. Burdick; Treasurer, Jefferson G. McKinney; Assistant Treasurer, Frank K. Ryan; Secretary, Leo F. Schiff; Censors, William H. Ladue, Clarence R. Hutchins, and Edward S. McDowell. There being no other candidates, the Secretary was instructed to cast one vote for all the candidates, and they were declared duly elected.

Albert L. Hayes of Dannemora was elected to membership.

On account of the illness of the Treasurer, the reading of his report was deferred until the semi-annual meeting.

The Special Committee on Public Health reported that they lent their moral support to the continued employment of a county health nurse. On a motion duly carried, the report was received and the committee continued in office.

Dr. T. Avery Rogers, Chairman of the Committee on Legislation, reported that there is no work for this committee during the summer months but that the work would begin again with the convening of the State Legislature at the beginning of the year. The report was accepted.

Dr. Leo F. Schiff, Delegate to the State Society, reported on the meetings of the State Society and the Fourth District Branch.

The following bills were order paid: Expenses of luncheon, \$12; flowers for Dr. McKinney, \$2; janitor of City Hall, \$5 (to include \$1 ordered at the semi-annual meeting and not paid). Secretary for postage, etc., \$2.

Letters of thanks from Dr. McKinney and Mrs. Center for attention shown them by the Society were read and ordered filed.

A communication from Dr. A. L. Reed in regard to medical propaganda was ordered filed. A communication from the American Medical Association containing a resolution in regard to illegal prescriptions of alcoholics by practitioners was read. It was moved that, inasmuch as there were no instances within the knowledge of this Society of such violations occurring in Clinton County, this resolution be laid on the table. Carried.

On motion duly made, seconded and carried, the Secretary was ordered to get in communication with the Secretary of Essex County for the purpose of making the semi-annual meeting of the two societies a joint meeting. Dr. Rogers presented the following resolution, which was seconded and carried:

Resolved: That the Medical Society of the County of Clinton instructs its Delegate to protest at the annual meeting of the House of Delegates against the annual tax imposed on physicians to enable them to prescribe narcotics. That the State Society protest against the imposition of more than a nominal tax, and that the members of the Society be requested to present their views to their Congressman in each district and request a lowering of the tax.

Dr. Rogers also inquired as to whether there was in the knowledge of any of the members present a lack of medical facilities in any part of the county. On discussion it appeared that there was no such condition in this county.

SCIENTIFIC PROGRAM

President's address, "Preventive Medicine and the Child." William H. Ladue, M.D. Discussed by Drs. Rogers, Burdick and Barton, Jr.

"Extra-Gastric Causes of Gastric Symptoms." E. S. McDowell. Discussed by Drs. Schiff and Barton.

"Pediatrics in Rural Practice." George R. Allen. Discussed by Drs. Burdick, Rogers and Ladue.

MEDICAL SOCIETY OF THE COUNTY OF NASSAU

ANNUAL MEETING AT MINEOLA, NOVEMBER 25, 1923.

The meeting resolved itself, for the most part, into a round table discussion of the problems of the Society, its growth and activity within the County as well as its relations with the State organization. Considerable attention was paid to the legislative problems of the State, and a greater concentration of effort on this phase of the Society's activities is promised for next year.

The death of our late Secretary-Treasurer, Dr. Cooley, made it necessary to find someone to handle the business routine of the Society, and it was decided to secure the services of someone without the membership of the organization.

The following officers were elected for the coming year: President, Richard Derby; Vice-President, Guy F. Cleghorn; Sec'y-Treas., Arthur D. Jaques; Lay Secretary, J. Louis Neff.

MEDICAL SOCIETY OF THE COUNTY OF OSWEGO

ANNUAL MEETING, TUESDAY, NOVEMBER 20, 1923

The one hundred and fifth annual meeting was called to order in the Hotel Pontiac, Oswego, N. Y.

President's address, Dr. W. McD. Halsey, Oswego. "The Treatment of Diabetes With and Without Insulin," Dr. Nelson G. Russell, Buffalo. Discussion opened by Dr. B. W. Sherwood, Syracuse.

Luncheon.

"Vomiting During the First Year of Life," Dr. George M. Retan, Syracuse. Discussion opened by Dr. E. A. Mowry, Mexico.

"The Pleasure of a Country Practice," Dr. Harwood L. Hollis, Lacona, Dr. W. McD. Halsey, Oswego, Dr. W. H. Kidder, Oswego.

The President's address was "Concerning the Profession." He made some interesting and rather disquieting statements regarding the health and mortality rates among the physicians of Oswego.

The following officers were elected for the year 1924: President, Frederick W. Manly, Phoenix; Vice-President, Albert L. Hall, Fulton; Secretary, Walter H. Kidder, Oswego; Treasurer, Joseph B. Ringland, Oswego; Delegate, James E. Mansfield; Censors, James E. Mansfield, Alexander C. Calisch, Harrington M. Wallace, Frank Edward Fox, LeRoy F. Hollis.

Resolutions were passed deciding that the semi-annual meeting be held at the County Sanitarium; and one establishing a publicity committee to secure publication of reliable articles on Insulin. By resolution Dr. Harwood L. Hollis was asked to seek publication for his paper, the Society agreeing to send reprints of the article to recent graduates in the State. Further action was taken as follows:

WHEREAS, It being manifest that in the medical profession co-ordinate action and professional contact is desirable, and that affiliation with the county, district and State societies furnishes the most feasible channel for such co-ordination and contact; and

WHEREAS, In our county there are a number of practitioners of medicine not affiliated with these societies;

Be It Resolved, That in order that these non-members may become better acquainted with the activities of the organized profession of the State, this society send to non-member practitioners of the county complimentary

subscription to the STATE JOURNAL for the months of January and February, 1924; and further

Be It Resolved, That this society send to such physicians complimentary subscription to the Journal of the American Medical Association for the month of March, 1924.

Forty-eight of the practitioners of the county were present at this meeting. The county society has a membership of fifty-six. The physicians of Oswego County feel proud of attendance records like this.

During the meeting it was brought out that at the annual meeting of twenty-five years ago Dr. A. S. Russell of Fulton, father of Dr. Nelson G. Russell of Buffalo, occupied the President's chair. It was also noted that one of the members present was Secretary on the occasion of the meeting of fifty years ago, back of which date no records of the society exist.

MEDICAL SOCIETY OF THE COUNTY OF SARATOGA

ANNUAL MEETING, NOVEMBER 7, 1923

Present: Drs. Gow, Crombie, Van Doren, Sherman, Higley, Cornthwaite, Resseguie, Towne, Loop, Ledlie, W. M. Moriarta, G. F. Comstock, C. R. Comstock, MacElroy and Post.

Following a bounteous dinner we listened to interesting papers by Dr. Oswald S. Lowsley of New York and Dr. Frank Vander Bogert of Schenectady.

This being the annual meeting the election of officers was next taken up:

John R. MacElroy was nominated for President, and as there were no other nominations for President, the Secretary was instructed to cast one ballot, this was done and Dr. MacElroy was declared elected.

Dr. Edward J. Callaghan was nominated to succeed himself as Vice-President, Dr. John B. Ledlie as Secretary, and Dr. Ralph B. Post as Treasurer. The Secretary on motion cast one ballot for each nominee; this being done, they were declared duly elected.

The following censors were duly elected: Walter C. Crombie, George H. Fish, Meritt E. VanAernem.

Carl R. Comstock was elected delegate to the State Convention.

The following Milk Committee was appointed by the outgoing President: Carl R. Comstock and G. Scott Towne, M.D.

MEDICAL SOCIETY OF THE COUNTY OF QUEENS

REGULAR MEETING, FLUSHING, TUESDAY, OCT. 30, 1923

The meeting was called to order at 8.30 at the Miller Auditorium, Flushing Hospital. The President, Charles B. Story, M.D., in the chair. After the reading of the minutes of the last meeting, Dr. Henry C. Courten, Chairman of the Board of Censors, presented the names of the following candidates for membership: Drs. Jerome Levy, Ferdinand H. Herrmann, E. M. Lebowich (by transfer from the Whiteside County Medical Society, Ill.). On motion duly seconded and carried they were declared elected.

The President announced that he had appointed a nominating committee, consisting of Drs. Adams, Meichner, Voltz, Chalmers, and McMahan, and asked for the report of that committee. Dr. McMahan, Chairman of the Committee, reported that the Committee made the following nominations for officers in the Society for the year 1924: President, Carl Boettiger, Astoria; Vice-President, Henry C. Courten, Richmond Hill; Secretary and Treasurer, Joseph S. Thomas, Flushing. Censors, Charles B. Story, Bayside, William J. Lavelle, Astoria, and James M. Wicks, Jamaica; Delegates to State Society, Charles B. Story and Carl Boettiger; Alternates, L. Howard Moss, Richmond Hill, Henry C. Eichacher, Brooklyn, and Francis G. Riley, Jamaica; Historian, John D. MacPherson.

There being no other nominations a motion to close the nominations was passed.

Dr. Chalmers for the Committee on Building and Site reported that the sum of \$14,600 had been collected from 147 members of the Society, and that enough subscriptions were in hand from members who had not yet paid because of absence from home, to ensure the payment of the total amount due on purchase of land authorized by the Society at its September meeting; that about \$4,000 was necessary to pay an assessment that will become due within the two years and other charges on the property. He also announced the intention at the November meeting of moving the following amendment to the By-laws:

Chapter 6, Section 1. The property of the Society shall be under the care and management of a Board of Trustees, consisting of five members, who shall be elected by the Society for a term of five years, except as provided in the next Section.

Section 2. The first election of members of the Board of Trustees shall be held at the regular meeting of the Society in November, 1923, at which time five members shall be elected to serve until the annual elections in the years 1925, 1926, 1927, 1928 and 1929, respectively; and as the term of office of one member shall expire in the successive year, his successor shall be elected for a full five-year term.

Section 3. The President, the Vice-President, the Secretary, the Censors, and the Trustees shall constitute the Comitia Minora.

Dr. Boettiger brought up the matter of the campaign against the election to the State Assembly of Peter B. Leininger, the proposer in the last assembly of the Chiropractic Bill, the Antivivisection Bill and the bill devised to restrict Surgical operations on children. He stated that the Long Island City Medical Society had voted to publish in the newspapers their endorsement of Mr. Leininger's opponent, Mr. Henry M. Deitz, and requested that this Society authorize a similar publication of its endorsement. In the discussion that followed information was given that before the selection of democratic candidates, the Long Island Medical Society had advised the democratic leaders in the district of their opposition to Mr. Leininger and that Mr. Leininger had been refused a renomination. He is now running independently and the democratic leaders had requested the public support of the Medical Society for the regular candidate, Mr. Deitz. The President referred the matter to a Committee consisting of Drs. Boettiger, Stein and Chalmers to report to the Society at the close of the Scientific Session.

SCIENTIFIC SESSION

The Diagnostic Value of the Meltzer-Lyon Test. A Report of Sixty Cases studied at the New York Hospital—Louis A. Hauser, M.D.

Treatment of Inoperable Carcinoma of the Breast by the Roentgen Ray—Ralph E. Herendeen, M.D.

The papers were discussed by Drs. Barber, Voltz, Startz and John G. Williams.

The Committee referred to above then offered the following resolution which was adopted unanimously: "Believing that the best interest of the public health will thereby be served the Medical Society of the County

of Queens, composed of the majority of the physicians licensed to practice in the Borough of Queens at its meeting held on October 30, 1923, unanimously endorse Henry M. Deitz for member of Assembly and request your vote regardless of affiliation."

A collation was served following the meeting.

THE MEDICAL SOCIETY OF JEFFERSON COUNTY

ANNUAL MEETING AT WATERTOWN, NOVEMBER 8, 1923.

The meeting was called to order at the Black River Valley Club at 5 P. M.

The following officers were elected: President, Leonard M. Vincent, Brownville; Vice-President, Norman L. Hawkins, Watertown; Treasurer, Andrew H. Allen, Watertown; Secretary, Walter S. Atkinson, Watertown; Delegate to State Society, Murray M. Gardner, Watertown.

Drs. Matthew M. Ryan and William N. Maloney were elected to membership. Dr. T. Edwin O'Brien was received on transfer from Monroe County, and Dr. Louis S. Budlong on transfer from Washington County Society.

Dinner was held following the business session.

SCIENTIFIC SESSION

Address by the retiring President, Murray M. Gardner, M.D., Watertown.

"The Use of Insulin in Diabetes and Other Conditions," William A. Groat, M.D., Syracuse. Discussion opened by John A. Barnette, M.D., Watertown.

"Surgery in the Diabetic," Gilbert D. Gregor, M.D., Watertown. Discussion opened by Frederic R. Calkins, M.D., Watertown.

MEDICAL SOCIETY OF THE COUNTY OF FRANKLIN.

ANNUAL MEETING, MALONE, NOVEMBER 13, 1923.

The meeting was called to order at the Elks Club.

The following officers were elected for the ensuing year: President, Francis B. Trudeau, M.D., Saranac Lake; Vice-President, Frank F. Finney, M.D., Malone; Secretary and Treasurer, G. M. Abbott, M.D., Saranac Lake; Censor for three years, Edward S. Welles, M.D., Saranac Lake; Deleplate to the State Medical Society, John E. White, M.D., Malone.

Dinner was served at 1 o'clock.

The scientific session was called to order at 2 o'clock, when the following very interesting papers were read and discussed:

"Uterine Hemorrhage From the Viewpoint of a General Practitioner," F. A. Lockhart, M.D., Montreal, Quebec.

"Indian and Pioneer Trails to Health in the North Country," E. S. Bates, M.D., Cornell University, Ithaca, N. Y.

"Appendicitis," Grant C. Madill, M.D., Ogdensburg, N. Y.

"Mental Factors in Diseases of Children," A. B. Chandler, M.D., Montreal, Quebec.

Books Received

Acknowledgment of all books received will be made in this column, and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interest of our readers.

DIAGNOSTIC METHODS, A GUIDE FOR HISTORY TAKING, MAKING OF ROUTINE PHYSICAL EXAMINATIONS AND THE USUAL LABORATORY TESTS NECESSARY FOR STUDENTS IN CLINICAL PATHOLOGY, HOSPITAL INTERNES, AND PRACTICING PHYSICIANS, by HERBERT THOMAS BROOKS, A.B., M.D., F.A.C.P., Professor Clinical Medicine, College Medical Evangelists, Los Angeles, Cal. Fourth Edition, with Fifty-two Illustrations. C. V. Mosby Co., St. Louis, 1923. Price, \$1.75.

AN INTRODUCTION TO THE STUDY OF MENTAL DISORDERS, by FRANCIS M. BARNES, JR., M.A., M.D. Associate Professor Nervous and Mental Diseases, St. Louis University Medical School, Neurologist to St. Mary's Hospital, Consultant Psychiatrist to the St. Louis City Sanitarium. Second Edition. C. V. Mosby Co., St. Louis, 1923. Price, \$3.75.

DISEASES OF THE SKIN, by RICHARD L. SUTTON, M.D., LL.D., Professor Diseases of the Skin, University Kansas School Medicine; Dermatologist, Christian Church Hospital. One thousand sixty-nine illustrations, eleven colored plates. Fifth Edition. Revised and enlarged. C. V. Mosby Co., St. Louis, 1923. Price, \$10.00.

DIAGNOSIS AND TREATMENT OF ACUTE ABDOMINAL DISEASES, INCLUDING ABDOMINAL INJURIES AND THE COMPLICATIONS OF EXTERNAL HERNIA, by JOSEPH E. ADAMS, M.B., M.S., Lond., F.R.C.S., Eng. Surgeon to St. Thomas's Hospital; Senior Surgeon, East London Hospital, Children. Second Edition. William Wood & Co., New York, 1923. Price, \$6.00.

MINOR MALADIES AND THEIR TREATMENT, by LEONARD WILLIAMS, M.D., Physician French Hospital. Fifth Edition. William Wood & Co., New York, 1923. Price, \$3.25.

LOCAL ANAESTHESIA METHODS AND RESULTS IN ABDOMINAL SURGERY, by PROF. DR. HANS FINSTERER, Surgeon-in-Chief, Vienna Hospital of the Brothers of Charity. Forty-two illustrations. Authorized English Version. By JOSEPH P. F. BURKE, M.D., Sc.D., LL.D., Buffalo, N. Y., Attending Surgeon, Buffalo City Hospital. Rebman Co., New York. Price \$5.00.

BLOOD CHEMISTRY COLORIMETRIC METHODS, FOR THE GENERAL PRACTITIONER, WITH CLINICAL COMMENTS AND DIETARY SUGGESTIONS, by WILLARD J. STONE, M.D., Pasadena, Calif.; Attending Physician, Los Angeles General Hospital. Introduction by George Dock, M.D. Paul B. Hoeber, New York, 1923. Price \$2.25.

A MANUAL OF HISTOLOGY, by V. H. MOTTRAM, M.A., Professor Physiology, University of London. 224 Diagrams. E. P. Dutton & Co., New York. Price \$6.00.

ALCOHOL AND PROHIBITION IN THEIR RELATION TO CIVILIZATION AND THE ART OF LIVING, by VICTOR G. VECKI, M.D., San Francisco, Cal. J. B. Lippincott Co., Philadelphia and London. Price \$2.00.

PARKES & KENWOOD'S HYGIENE AND PUBLIC HEALTH, by LEWIS C. PARKES, M.D., D.P.H., the Consulting Sanitary Adviser to H. M. Office of Works, and HENRY R. KENWOOD, C.M.G., M.B., Professor of Hygiene, University of London. 7th edition, 90 illustrations. XI, 783 pages. P. Blakiston's Son & Co., Phila. Cloth, \$7.00.

THE MEDICAL DEPARTMENT OF THE UNITED STATES ARMY IN THE WORLD WAR. Vol. V, Military Hospitals in the United States, Prepared under the Direction of Maj. Gen. M. W. Ireland, M.D., Surgeon-General of the Army. By Lieut. Col. Frank W. Weed, M.C., U. S. Army, Washington, Government Printing Office, 1923.

LA CHRONAXIE CHEZ L'HOMME, ETUDE DE PHYSIOLOGIE GÉNÉRALE (NORMALE ET PATHOLOGIQUE) DES SYSTÈMES NEURO-MUSCULAIRES ET SENSITIFS, par le Dr. GEORGES BOURGUIGNON, Docteur ès Sciences, Chef du Laboratoire d'Electro-Radiothérapie de la Salpêtrière, Membre correspondant de l'Académie Royale de Médecine de Turin. 50 Figures, 192 Tableaux dans de texte. Masson et Cie, Editeur Libraires de L'Académie de Médecine, 120 Boulevard Saint-Germain, Paris, 1923.

DR. IVAN BERTRAND, Chef de Laboratoire à la Faculté de Médecine de Paris, Les Processus de Désintégration Nerveuse, Préface du Professeur Pierre Marie. Masson et Cie, Editeurs, Libraires de L'Académie de Médecine, 120 Boulevard Saint-Germain, Paris, 1923.

Book Reviews

TEXT-BOOK OF PEDIATRICS. Edited by PROFESSOR E. FEER, Director University Children's Clinic, Zurich. Translated and edited by JULIUS PARKER SEDGWICK, B.S., M.D., Professor Pediatrics, University of Minnesota Medical School, and CARL AHRENDT SCHERER, M.D., F.A.C.P., Duluth, Minnesota. 262 Illustrations. First Edition in English. J. B. Lippincott Co., Phila. and London. 1922. Price \$8.50.

Feer's text-book is an encyclopedic work in one volume. A list of its European contributors, including such names as Finkelstein, Moro and Pirquet, with its American editor, Prof. Sedgwick, who has just recently died, would alone entitle it to high standing, and this is confirmed by its perusal. The work of the American collaborators, who are many and able, does not appear in the form of mentioned additions but is interwoven in the text in such a way that one can merely infer it from his assumptions of what seems American, or from his knowledge of the original. The result is admirable and combines the European (Teutonic) with the American state of mind. If any criticism is to be made it would be on the therapeutic side; it would seem that, in the main, measures of demonstrable value only are included and empiric treatment is not given much consideration. No one volume book can be monographic but, in many places, this approaches this result in every practical particular; also the recent American revision enables it to come as close as possible to the last measures, particularly of treatment and not many omissions are noted, because of their newness. It can be recommended as a useful and valuable work on its subject.

TEXT-BOOK OF OPHTHALMOLOGY. By HOFRA ERNST FUCHS, former Professor Ophthalmology University Vienna. Authorized translation from the Twelfth German Edition; with numerous additions specially supplied by the author, by Alexander Duane, M.D., Surgeon Emeritus, Knapp Memorial Hospital. 455 illustrations. Seventh edition, revised and reset. J. B. Lippincott Co., Phila. and London. 1923.

In the present edition one sees an almost complete rearrangement of the subject matter of the work, into a sequence that seems much more logical than that of previous editions. By grouping all descriptions, first of anatomy and then of physiology together, and then bringing forward the discussions of the subjects of refraction and motor anomalies, the way is cleared for the chapters on the diseases of the eye to proceed without interruption from lids to optic nerve, glaucoma, injuries and orbit.

As in the other editions, consideration of operations on the eye comes last.

The bulk of the volume is less by 70 pages, showing evidence of some condensation and the exclusion of obsolete matter. The text has been thoroughly modernized, a few of the newer subjects including Von der Hoeve's theory of the origin of cataract and senile macular degeneration, Gullstrand's observations on the character of the images in astigmatism and the structure of the lens, additions on the subject of perimetry, paragraphs on the slit lamp, etc.

New operations include Wheeler's operations for a new socket and for blepharoplasty, other plastic operations, newer operations for keratoconus and staphyloma, etc.

These, with new illustrations, constitute changes which make this edition of the "Ophthalmologist's Bible" a noteworthy advance over previous editions.

E. CLIFFORD PLACE.

PRACTICAL PHYSICS. By J. A. CROWTHER, Sc.D., F. Inst.P., Sometime Fellow St. John's College, Cambridge Demonstrator Physics Cavendish Laboratory, Henry Frowde and Hodder & Stoughton, London, 1922. Price, \$3.25.

This volume will be welcomed by both students and teachers of physics. It is a systematic and clear presentation of the major phenomena of Natural Science, together with a section devoted to experiments. The latter have been carefully selected so that procedures involving too much apparatus, or unsuitable for students in any respect, would be excluded. The book is well indexed and is profusely illustrated with diagrammatic representations of apparatus commonly used in experimental physics.

FRANK E. MALLON.

THE MEDICAL CLINICS OF NORTH AMERICA. Mayo Clinic Number. Vol. VII, No. 1, July, 1923. Published bi-monthly by W. B. Saunders Company, Philadelphia. Paper, pp. 315, price \$12.00 per year.

This number contains four practical articles covering the use of insulin in actual cases. There are twenty-eight papers altogether. This number is up to the usual high standard of the Medical Clinics.

F. D.

THE MEDICAL CLINICS OF NORTH AMERICA, Chicago Number, Vol. VII, Number 2, September, 1923. Published bi-monthly by W. B. Saunders Company, Philadelphia. Paper, pp. 310, price \$12.00 per year.

Many of the clinics in this number show a tendency to wander from the bounds of internal medicine and to stray in the fields of surgery and pediatrics. The type of paper herein included differs but little from that of previous numbers, and the same high standard is maintained.

F. D.

PRACTICAL BACTERIOLOGY, BLOOD-WORK AND ANIMAL PARASITOLOGY. By E. R. STITT, A.B., Ph.G., Sc.D., LL.D. Seventh Edition, revised and enlarged, 12mo of 766 pages with 203 illustrations. P. Blakiston's Son & Co., Philadelphia, 1923. Price, \$5.00.

The reviewer has long believed that "Stitt" contained within its compact form more practical information than many a heavier tome. It has seldom failed to yield the desired information, often scoring a beat on larger works. The methods described have always been eminently practical. One felt the author had used these methods himself.

It is, therefore, a pleasure to review this new edition. The original form is retained, but recent advances have necessitated an increase in volume of 132 pages. The

new methods and changes include a section on nutritional diseases, description of Kahn test, substitution of Jan-sky for Moss blood groups and Kolmer modification of the Wassermann test. A thorough survey shows that all departments of clinical pathology have been brought up to date. The section on animal parasitology is, as usual, particularly good.

E. B. SMITH.

A TEXT-BOOK OF THE PRACTICE OF MEDICINE. By Various Authors, edited by FREDERICK W. PRICE, M.D., F.R.S., (Edin.), Senior Physician, Royal Northern Hospital, London. Henry Frowde and Hodder & Stoughton, London, 1922. \$10.00.

This volume is a worth while addition to any medical library. It is complete, yet concise. Especially commendable is the section on diseases of the heart. A valuable feature of this volume is the detailed treatment of each disease. A section on skin diseases and mental diseases is included. This book can certainly be recommended to the practitioner of medicine as a fairly complete and ready reference.

HENRY JOACHIM.

THE TONSILS, FAUCIAL, LINGUAL AND PHARYNGEAL. With Some Account of the Posterior and Lateral Pharyngeal Nodules. By HARRY A. BARNES, M.D., Instructor Laryngology, Harvard Medical School; Laryngologist, Massachusetts Charitable Eye and Ear Infirmary and Massachusetts General Hospital. Illustrated. Second Edition. C. V. Mosby Co., St. Louis, 1923. Price, \$5.00.

Since the first edition of this work, which appeared nine years ago, the views regarding the diseases, and the treatment of the diseases of the tonsils, have changed a great deal. To conform to these new views the author has rewritten the chapter dealing with the tonsils and focal infection, and has added a new one on the use of X-ray and radium for the treatment of diseases of the tonsils. The new operations for the removal of the tonsils, as well as the old ones, are described, and the complications and sequelæ are fully discussed. The chapters on anatomy, histology, pathology, and bacteriology, have not been changed to the same extent as have some of the others. A number of new illustrations have been added.

The work, dealing not only with the faucial tonsils but the entire Waldeyer ring, is very exhaustive, well written, and gives the latest thought on the subject. It will repay reading by the physician doing general work as well as the one limiting his work to the field of diseases of the nose and throat.

JOHN W. DURKEE.

THE TUBERCULOSIS WORKER. A Handbook on Methods and Programs of Tuberculosis Work by PHILIP P. JACOBS, Ph.D., Publicity Director, National Tuberculosis Association, and Managing Editor, Journal of the Outdoor Life. By WILLIAMS & WILKINS Co., Baltimore, Maryland. 1923.

Here is a very generous volume replete with valuable information for all who are interested in anti-tuberculosis campaigns. The author is one who has devoted himself for many years to this sort of work and has been one of the most earnest workers in the National Tuberculosis Association. Here, all the well tried methods, organization and otherwise, of approaching the problem of reducing the incidence of Pulmonary Tuberculosis are ably discussed and appraised. Every social service worker, every public health worker, the city health official, physician and nurse, interested in Tuberculosis will find this book of lasting value. It is admirably complete, exceedingly well edited, and a great credit to Dr. Jacobs.

FOSTER MURRAY.

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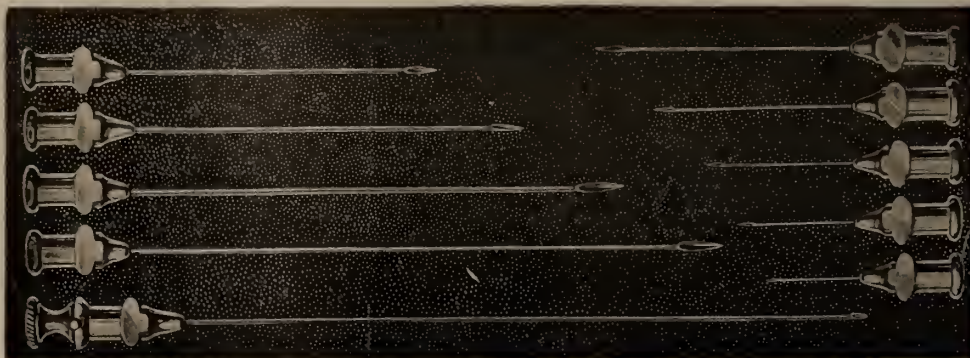
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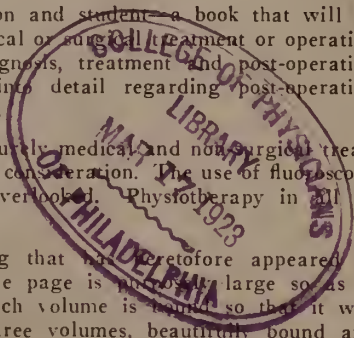
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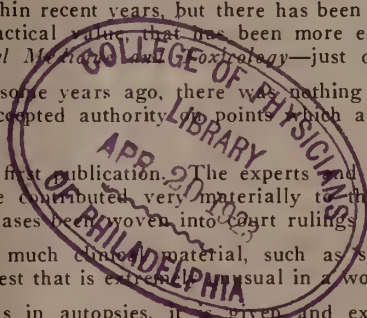
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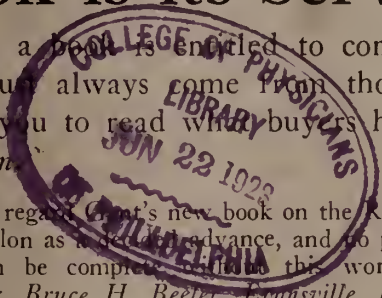
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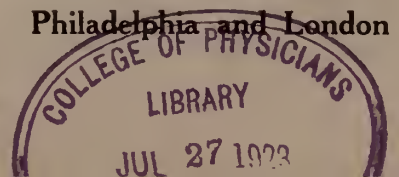
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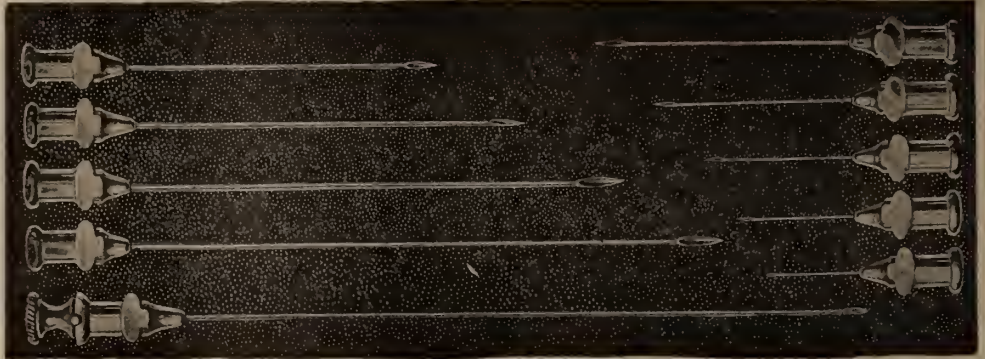
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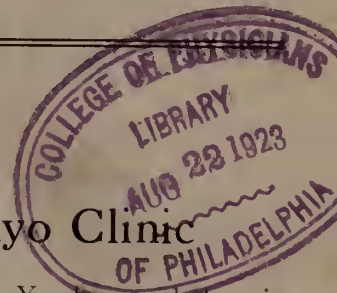
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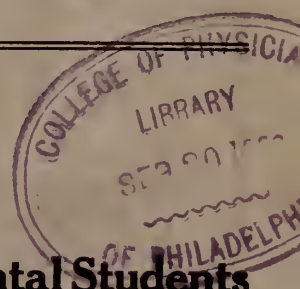
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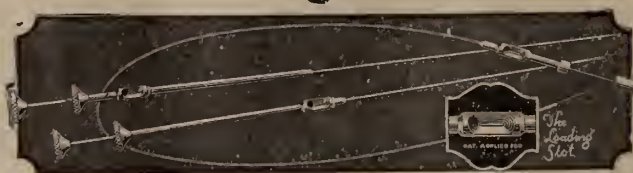
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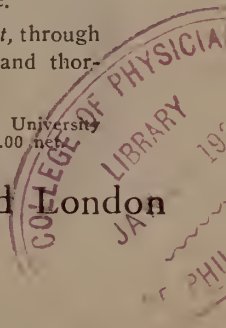
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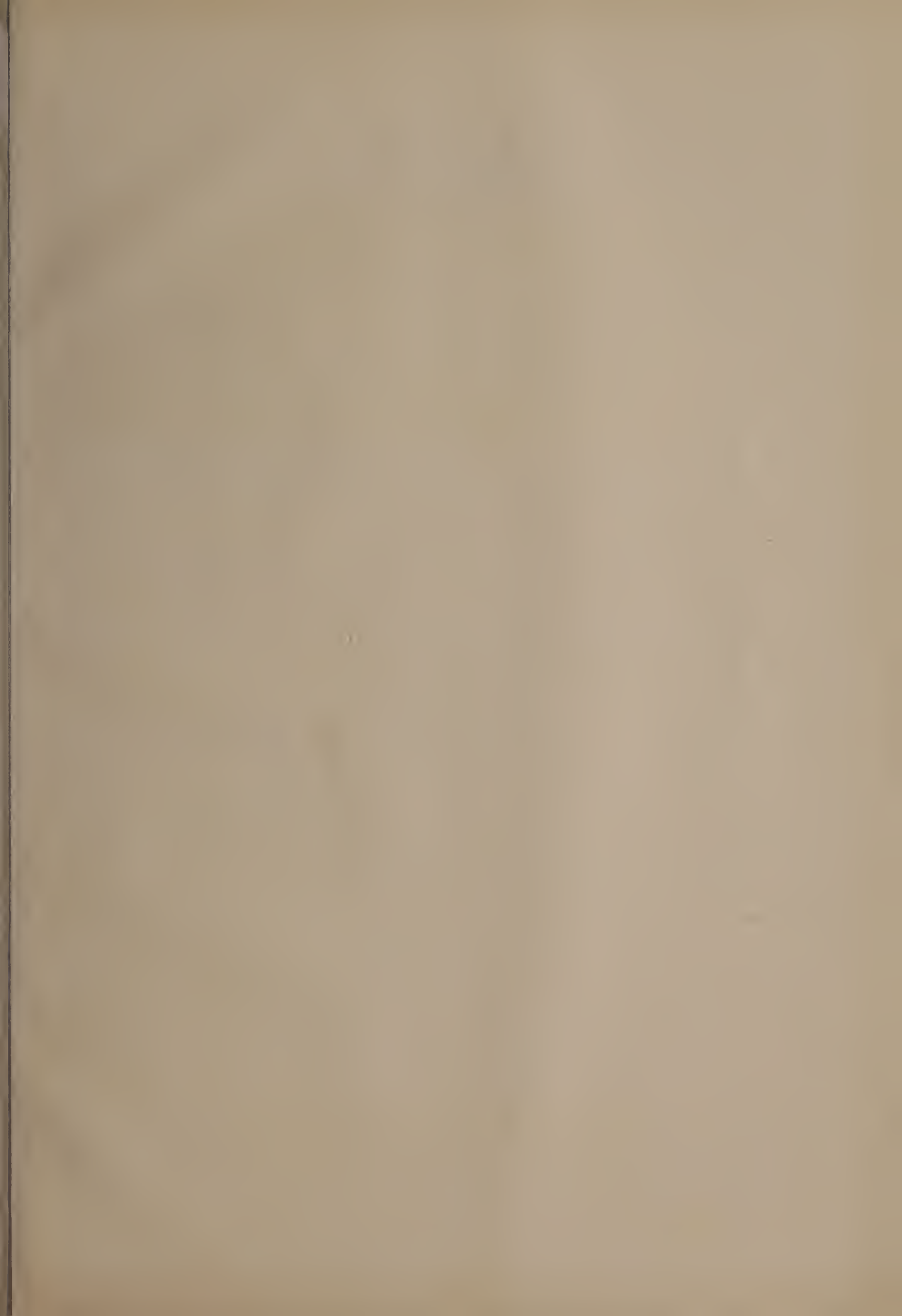
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